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March 18, 2004

Attached is the Department of Community Services and Development's final *Senate Bill 5X, Legislative Report for the California Low-Income Home Energy Assistance Program (CAL LIHEAP)*, which was originally submitted in September 2003 during the prior Administration. This report serves as the final Legislative Report on the accomplishments of the CAL LIHEAP program. The updates and revisions from the prior report are listed below:

- Page i: Executive Summary was updated.
- Page 1: Background was updated to include the CAL LIHEAP Budget Reversions to the State General Fund.
- Page 28 (of the March 2003 report): "Additional Wx Measures" was eliminated and is not applicable to the final accomplishments that are reflected in this report.
- Page 33: Native American Indian: This data is new and was added to report the accomplishments of the Native American Indian Contractors.

A handwritten signature in dark ink, reading "Tim Dayonot", is positioned above a horizontal line.

TIMOTHY M. DAYONOT  
Director



**Senate Bill 5X**  
**Legislative Report**

**California Low-Income Home Energy Assistance Program  
(CAL LIHEAP)**



**Department of Community Services and Development**

**March 2004**

## Executive Summary

In April 2001, in response to California's energy crisis, Senate Bill 5X (SB 5X) (Chapter 7, Statutes of 2001) appropriated \$95.3 million to the Department of Community Services and Development (CSD) to supplement the federal Low-Income Home Energy Assistance Program (LIHEAP) and implement the California Low-Income Home Energy Assistance Program (CAL LIHEAP). The CAL LIHEAP goals were to 1) increase energy conservation, 2) reduce the demand for energy services in low-income households (at or below 250% of the federal poverty guidelines) and 3) assure that the most vulnerable households could cope with high energy costs.

These goals were met through the provision of energy conservation training, weatherization services, cash assistance (to offset energy costs and avoid utility shut-off), and focused outreach activities. The CAL LIHEAP had many positive outcomes and helped to fill some of the gaps left by the federal LIHEAP Program. This final CAL LIHEAP Legislative Report describes in detail the steps CSD took to establish CAL LIHEAP, and the program outcomes, as demonstrated below:

- Households Served – 152,221
- Energy Shut-off or Crisis Avoided - 42,718
- Households Weatherized - 32,421  
*(Weatherization services provide an average annual energy cost savings of \$300, resulting in savings for years to come)*
- Electric Savings – 14 million kilowatt hours of electricity  
*(Savings can provide electricity to an additional 3,006 homes for one year)*
- Gas Savings - 584,000 therms of gas  
*(Savings can provide gas to an additional 1,385 homes for one year)*
- Vulnerable Populations Served – 186,613 individuals  
*(Elderly, disabled, limited-English speaking, very young children and migrant and seasonal farm workers)*

Despite the fact that 152,221 households were served under CAL LIHEAP, approximately 97% of the 5,145,014 eligible households (at or below 250% of the federal poverty guidelines) were not served.

## Lessons Learned

### *Importance of Capturing Energy Savings*

The installation of Electric Base Load Measures produced the most immediate and highest kilowatt-hour savings. These measures immediately reduced the low-income

household's energy burden and provided long-term solutions by reducing the strain on California's power grid. As a result, CSD has placed a priority on the installation of Electric Base Load Measures and is designing a system to capture energy savings in the federal LIHEAP Program. CSD has included "promoting energy efficiency" as a core function within its mission. Prior to CAL LIHEAP, CSD's mission primarily focused on "improving the quality of life the poor."

#### *Increase in Weatherization Services*

Weatherization is a long-term solution that reduces energy usage and costs, and also helps to ensure the health and safety of the household. It is important to note that SB 5X provided more emphasis on weatherization by stipulating that no less than 50 percent of the CAL LIHEAP funds be allocated for weatherization services, while federal LIHEAP only permits up to 25 percent. The added emphasis on weatherization in CAL LIHEAP immediately reduced the energy burden of low-income households and had an ongoing effect of reducing the demand on California's energy grid.

The President has proposed a significant increase in funding in 2005 to the U.S. Department of Energy Weatherization Assistance Program. There appears to be little emphasis or focus on increasing the weatherization maximum allocation in LIHEAP. While CSD recognizes that cash assistance is instrumental in alleviating an immediate crisis, CSD believes a higher percentage of funding dedicated to weatherization is the most effective use of the dollars.

#### **Recommendation**

CSD recommends that future consideration be given to supplement the federal LIHEAP program. In addition, California should continue its proactive efforts to increase California's share of federal funds.

## Table of Contents

Executive Summary .....	i
Background .....	1
Program Components .....	1
Program Development and Design .....	2
Funding Allocation, Distribution and Expenditures .....	3
Program Activities .....	6
Estimated Impact of Funds on Energy Demand .....	7
Program Accomplishments .....	31
Estimated Unmet Need .....	34
Automated Data Collection and Reporting .....	34
Conclusion .....	35

### Appendices:

Appendix A: Map of California Energy Commission Forecasting Climate Zones and  
CAL LIHEAP Providers Forecasting Climate Zones

Appendix B: Per Measure Energy Impact for PG&E, SCE, SCGC and SDG&E

Appendix C: Number of Homes Weatherized and Estimated Yearly Energy Savings  
per CAL LIHEAP Provider



## California Low-Income Home Energy Assistance Program (CAL LIHEAP) Report to the Legislature March 2004



### Background

In April 2001, Senate Bill 5X (SB 5X) of the first extraordinary session, (Chapter 7, Statutes of 2001) authorized the Department of Community Services and Development (CSD) to receive \$120 million from the General Fund for the purposes of supplementing the federal Low-Income Home Energy Assistance Program (LIHEAP) and to implement a new California Low-Income Home Energy Assistance Program (CAL LIHEAP). The goals of this program were to increase energy conservation, reduce the demand for energy services in low-income households and assure that the most vulnerable households cope with high energy costs.

SB 5X established the CAL LIHEAP Program components of Weatherization and Conservation Services (WX), Energy Crisis Intervention Services (ECIS), and Cash Assistance Payments (CAP). CSD was directed to set aside \$20 million of the \$120 million appropriation for distribution to local service providers located in areas that were serviced by Locally Owned Public Utilities (LOPU's).

As a result of the slow down in the economy and the decline in State revenue, CAL LIHEAP funds were reduced to \$95.3 million, as a result of three reversions totaling \$24.7 million.



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### Program Components

#### WX

The WX component consisted of services to improve the energy efficiency of homes, including the installation of attic insulation, weatherstripping, minor housing repairs, and related energy conservation measures. The weatherization program encompassed a wide range of electric base load, mandatory and optional measures, identified to have the greatest impact on energy reduction. Weatherization services assisted in reducing the demand for energy and will continue to provide energy savings in the future.

#### CAP

The CAP component of the program consisted of gas and electric bill payments made on behalf of the client to the utility company to assist with the eligible households heating and cooling costs. This program also included wood, propane and oil payments.

## **ECIS**

The ECIS component of the program consisted of gas and electric bill payments, wood, propane and oil payments, and furnace repair and replacement on behalf of those households identified in a crisis situation. An ECIS payment was made when an applicant received a 24 or 48-hour disconnection notice or other utility service disconnection notice that would imply a life-threatening and/or emergency situation; or the applicant's utility services had been terminated; or the applicant required assistance establishing a new energy account.

## **LOPU**

The funds allocated for LOPU were used for energy bill payments only. These funds were set aside for the payment of energy bills of clients whose energy supplier is identified in the CAL LIHEAP Contract as a LOPU in the contractor's service area.



## **Program Development and Design**






In designing and developing CAL LIHEAP, CSD mirrored the Federal LIHEAP program with some added flexibility not allowable under the federal program. SB 5X provided that eligibility for CAL LIHEAP services include households with incomes that did not exceed 250% of the federal poverty level (FPL) for this state. The 250% income maximum enabled CSD to serve a larger population of households typically categorized as the "working poor." These households would not qualify for assistance under the federal LIHEAP income guidelines of 60% of the state median income (SMI) (which equates approximately to 200% of the federal poverty level).

Listed below is a chart depicting the income differences in the CAL LIHEAP and Federal LIHEAP Programs:

Number in Household	CAL LIHEAP 250% FPL Annual Income	Number in Household	LIHEAP 60% SMI Annual Income
1	\$21,475	1	\$17,225
2	\$29,025	2	\$22,525
3	\$36,575	3	\$27,825
4	\$44,125	4	\$33,125
5	\$51,675	5	\$38,425
6	\$59,225	6	\$43,725
7	\$66,775	7	\$44,719
8	\$74,325	8	\$45,713

Secondly, to increase the availability and impact of ECIS and CAP, each service provider was asked to complete a local plan to determine the amount of funds to be allocated within the ECIS and CAP components of the contract, based on local determination and identified needs of the client population in their service areas. Additionally, the service providers were granted the flexibility of selecting the maximum benefit payable and the number of payments that each eligible household could receive. This allowed the service providers to meet the needs of clients that were faced with exceptionally high utility bills, and assured the household would receive sufficient assistance to alleviate their energy concerns.

Thirdly, to meet the intent of SB 5X, to immediately reduce energy consumption, CSD designed the CAL LIHEAP WX component to ensure that Electric Base Load (EBL) Measures would be the first priority for installation. EBL measures included:

-  Refrigerator Replacement,
-  Electric Water Heater Repair/Replacement,
-  Microwave Oven Replacement/Installation,
-  Thread-based Compact Fluorescent Lamps, and
-  Hard-Wired Compact Fluorescent Lamps.



## **Funding Allocation, Distribution and Expenditures**

To ensure the timely implementation of services and to begin the reduction of energy usage immediately, CSD distributed funds through our existing LIHEAP Local Service Providers, comprised of forty-five local governmental and nonprofit organizations and two (2) Native American Indian providers that provide services in all fifty-eight counties of California. The funds were allocated and distributed in phases as follows:

Phase 1A – Initially, \$29,100,000 million was distributed to provide program services based on a Three-Factor-Formula consisting of low-income population, climate and energy costs. The original contract term was June 1, 2001 through August 31, 2001 to ensure services were implemented during the peak summer months of June, July, and August.

Phase 1B – Less than six weeks into Phase 1A several CAL LIHEAP Local Service Providers notified CSD they had expended the initial cash assistance funds. To prevent a gap in services, these agencies received a doubling of their initial Phase 1A allocation. Phase 1B total distribution was \$12,787,932.

Phase 2A – The original contract term was extended for all service providers from August 31, 2001 to November 30, 2001. CAL LIHEAP funds were allocated to



those agencies that had not previously received the doubling of their Phase 1A allocation. Total Phase 2A allocations were \$15,768,502.

Phase 2B – Due to the high demand for assistance with utility payments CSD received additional requests from service providers that had expended their Phase 1A, 1B, and 2A cash assistance funds. These agencies had clients but no funds to provide services. To prevent a gap in service, these agencies were allocated an additional 50% of their initial Phase 1A allocation. Total Phase 2B allocations were \$4,156,823.

Phase 3 Extension – The contract term for all CAL LIHEAP contracts was extended to December 31, 2002.

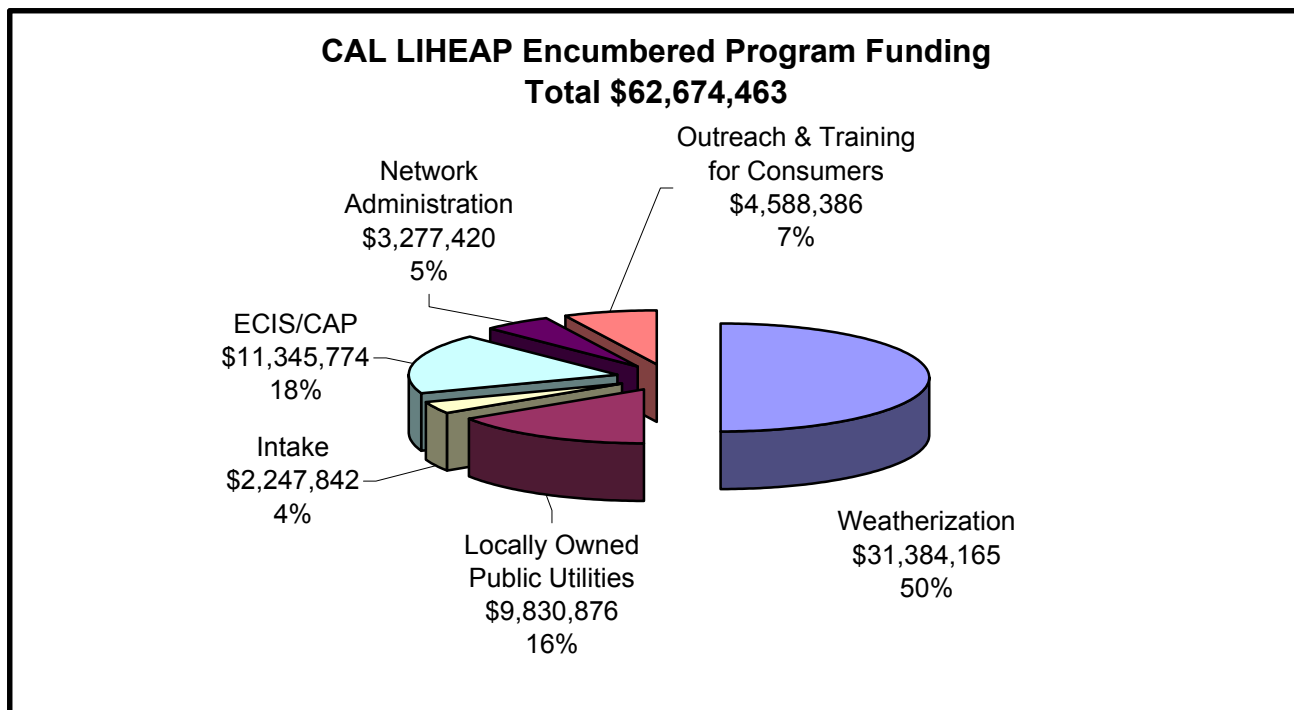
Native American Indian Set-Aside – \$840,000 was allocated for a Native American set-aside. Under federal LIHEAP, California Indian Tribes are provided a 0.7% set-aside from California's annual federal LIHEAP gross allotment.

Although not specifically identified as a vulnerable population in SB 5X, California Indian Tribes were recognized in Section 5(j) of SB 5X as a group that warranted special rules for access to specific SB 5X funds and various outreach requirements. It is CSD's belief that the insertion of the above-described provisions was a signal by the Legislature that California Indian Tribes should not be overlooked during the energy crisis. Therefore, CSD mirrored the federal program and awarded 0.7% (\$840,000) of the total CAL LIHEAP funding to California Indian Tribes.

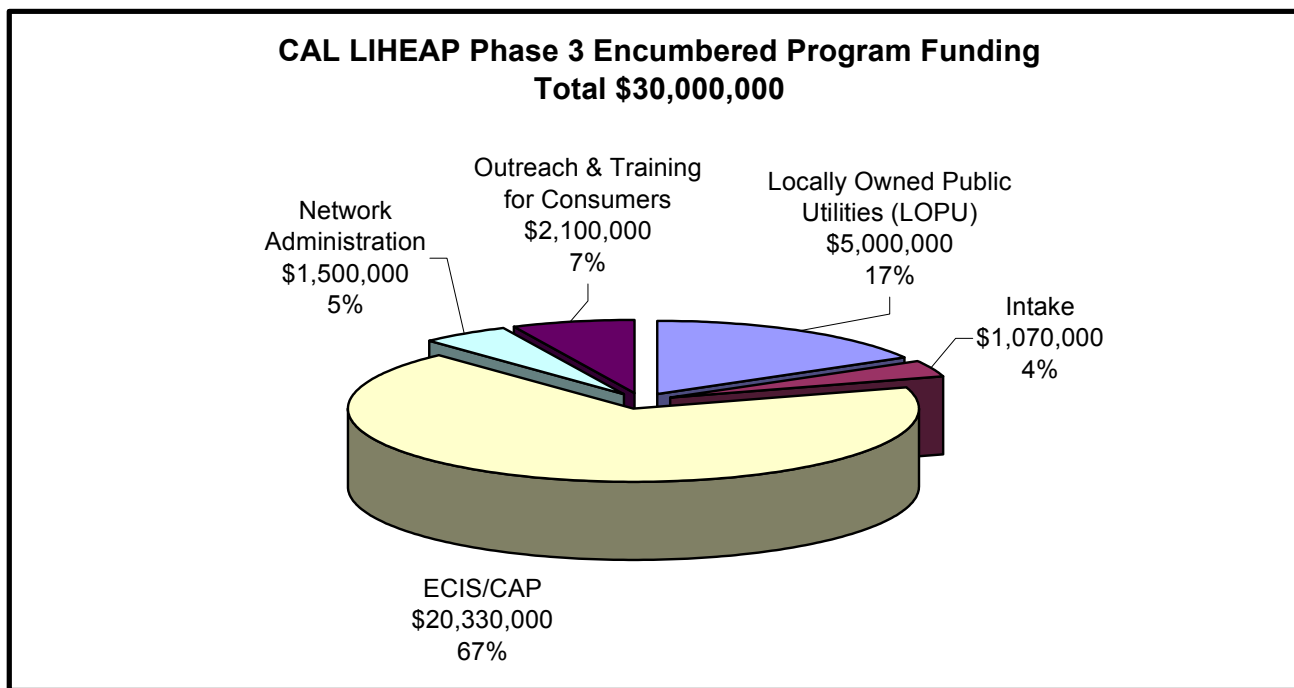
The Native American Indian contracts were distributed in January 2002.

Phase 3 Augmentation – On February 2, 2002, Senate Bill X3 1 (Chapter 1, Statutes of 2002) restored \$30 million to CAL LIHEAP for the purpose of CAP, ECIS and LOPU payments. The \$30 million had to be expended by June 30, 2002.

As shown in the following two pie charts, from June 1, 2001, through December 31, 2003, CSD allocated and encumbered a total of \$92,674,463 in contracts to CAL LIHEAP Local Service Providers. Chart 1 illustrates the breakdown of funds by component for phases 1 and 2, including the Native American Set-Aside. Chart 2 illustrates the distribution of the \$30 million, which was restored in February 2002. As shown, the \$30 million was allocated to the ECIS, CAP and LOPU components.



**Chart 1: Encumbered Funding--Phase 1, 2 and Native American Set-Aside**



**Chart 2: Encumbered Funding Phase 3--Augmentation**



## **Program Activities**

### **Outreach and Assistance to Vulnerable Populations**

Energy assistance is important to all recipients, but with the energy crisis, California's vulnerable population groups were the most adversely impacted. Senate Bill 5X identified the vulnerable populations to be served: elderly persons, disabled persons, limited-English-speaking persons, migrant and seasonal farmworkers, and households with very young children. Additionally, SB 5X required CSD to ensure that vulnerable populations have comparable access to the energy programs. CAL LIHEAP Local Service Providers were required to conduct special outreach to vulnerable households, including outreach to senior centers, independent living centers, welfare departments, regional centers, and to migrant and seasonal farmworkers. Outreach activities included: flyers, brochures, outreach mailers to target populations, and/or public announcements.

### **Intake**

CAL LIHEAP Local Service Providers were required to conduct client intake and assessment for all persons seeking CAL LIHEAP services. Prior to the intake process, a pre-screening of customers, either via the telephone or in person, occurred to determine eligibility. After eligibility was determined, applicable documentation needed to assist the client was collected. Once the documentation was verified and the household was determined to be eligible for assistance, the application was forwarded to CSD for payment. The intake process for CAP and ECIS was completed through an automated system.

### **Conservation Services (Training for Consumers)**

SB 5X required CAL LIHEAP Local Service Providers to provide all recipients of energy assistance with energy conservation education information and budget counseling that included the following:

- Information regarding the importance of applying for energy assistance prior to being in an arrearage situation and information concerning various utility company budget payment plan(s).
- Written information that described energy-saving behavioral adjustments that would decrease the energy consumption of the household.
- Resource information, referrals to other energy programs, and family and budget counseling in order to assist clients in achieving self-sufficiency.
- A description of the benefits that the client could expect to receive as a result of the weatherization measures and the purposes and functions of each measure installed in the dwelling.



## **Estimated Impact of Funds on Energy Demand**

### **Reporting Requirements**

In an effort to quantify the impact CAL LIHEAP WX services, also known as “installation of measures” in the industry, have on the reduction of low-income customer energy demand, CSD contracted with Richard Heath and Associates (RHA). CSD, with the aid of RHA and in consultation with the CAL LIHEAP Local Service Providers, developed programmatic guidelines and protocols including policies and procedures, material and installation standards and a comprehensive data collection and analysis tool to analyze the impact of CAL LIHEAP services on energy demand.

To assist in gathering necessary data, CAL LIHEAP Local Service Providers were provided data collection and reporting tools to capture and report monthly per-dwelling client energy usage demographics, and information on weatherization activities completed using CAL LIHEAP funds. Program data (June 2001 through July 2003) was summarized and energy savings calculations estimated using existing models developed by California investor-owned utilities and the California Energy Commission (CEC).

The following analysis is part of a larger report prepared by RHA for CSD. This report presented the analysis and projected energy savings derived with data collected from the forty-five service providers and two Native American Indian providers participating in the CAL LIHEAP program. Appendix C shows the number of dwellings weatherized and the kilowatt-hour (kWh) and therms saved by each local service provider.

The CAL LIHEAP Local Service Providers put significant effort into reporting concurrently to CSD and RHA. However, in reconciling the numbers of the dwellings weatherized and the measures installed reported to CSD and to RHA, there are differences. For example, a Service Provider reported to CSD the number of households served and the number of measures installed. If the Service Provider then returned to the house at a later date to install additional measures, they reported the household again to CSD and reported on the additional measures installed. Since CSD does not collect data that identifies individual households, there is a potential for some households to be duplicated. On the other hand, RHA collected data to identify the household and Service Providers were able to update the household measures installed without duplicating the number of households served. As a result of this difference, program accomplishments reported in the Executive Summary and on page 32 reconcile to data Service Providers reported to CSD and will not match the numbers reported to RHA and reflected in the tables and graphs on pages 10-30.

## **Installation of Measures**

CSD developed and implemented the CAL LIHEAP Weatherization Program to rapidly and effectively increase energy conservation and reduce demand for energy. The energy efficiency program embraced measures that would have the greatest impact on peak demand reduction. The five (5) measures listed below were identified and given the highest priority for installation as they afforded the greatest potential for energy usage reduction:

- **Refrigerator Replacement**
- **Electric Water Heater Repair/Replacement**
- **Microwave Oven Replacement/Installation**
- **Thread-based Compact Fluorescent Lamps**
- **Hard-Wired Compact Fluorescent Lamps**

This group of measures was entitled “Electric Base Load Measures.” The backbone of a successful installation program was a set of up-to-date material and installation standards, as there exists a direct correlation between correct installation and measure effectiveness. To this end, CSD developed and distributed to its CAL LIHEAP Local Service Providers, “Electric Base Load Measures Material and Installation Standards” consistent with 1) new statewide Low Income Energy Efficiency (LIEE) Program standards, 2) newly-updated Title 24 Residential Building Energy Efficiency Standards, and 3) current California building codes, mechanical codes, and electrical codes.

Likewise, fundamental to a successful retrofit installation program are technical and programmatic policies and procedures. Measure-specific policies and procedures for the five (5) Electric Base Load Measures were developed and disseminated to CAL LIHEAP Local Service Providers to supplement CSD’s administrative policies.

## **Assumptions**

To maintain consistency between all statewide weatherization programs and utility low-income energy efficient programs, a review of current data collection strategies, reporting formats, and assumptions used by California investor-owned utilities was performed. The information gathered was incorporated into CSD’s data collection and reporting protocol. Program data was summarized and energy savings calculations were estimated using existing models developed by California investor-owned utilities and the California Energy Commission (CEC).

Since CAL LIHEAP was a statewide program, its service territory traversed multiple climate zones and included customers from the four major investor-owned utilities. In order to apply the per measure energy impacts developed in the CEC Statewide 2001 Database for Energy Efficiency Resources (DEER) Update Study, each CAL LIHEAP Local Service Provider was assigned a CEC Forecasting Climate Zone that correlated with the utility in whose service area the agency performed weatherization services. It should be noted that the CEC Forecasting Climate Zones used in the 2001 DEER Update Study are different than the Title-24 climate zones. Appendix A contains a map of

California Energy Commission Forecasting Climate Zones and a list of the 47 Service Providers with their corresponding CEC Forecasting Climate Zone.

Included in Appendix B is a list of weatherization measures that were installed using CAL LIHEAP funds, along with their projected yearly energy impact in kilowatt-hours (kWh) and therms. The per measure energy impacts were taken from the "Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report," February 1, 2001, the "2001 DEER Update Study," and calculated using information from Pacific Gas and Electric (PG&E) Company's most recent "Residential Energy Savings Report."

The list is grouped into three categories: Weatherization Activities, Mandatory Measures (including the "Electric Base Load Measures"), and Optional Measures. Under Optional Measures only the top five (5) most frequently installed measures were included, the remainder of the Optional Measures were grouped under Other Optional Measures. These included a miscellaneous group of measures installed by the CAL LIHEAP Service Providers during the program.

The list also contains weatherization activities and measures that were performed as either a prerequisite to installing a weatherization measure or to mitigate a potential health and safety hazard. The four (4) weatherization activities (see Appendix B for list of activities) and the following three (3) measures have little or no energy savings associated with them: Combustion Appliance Safety Hazard Repair/Replacement, Attic Venting and Electric Water Heater Repair.

### **Data Collection**

To assist in gathering necessary data, CAL LIHEAP Service Providers were supplied data collection and reporting tools to capture and report monthly per-dwelling client energy usage demographics, and information on weatherization activities completed using CAL LIHEAP funds. These monthly weatherization activity reports were collected and compiled into a database by RHA.

From June 2001 through July 2003, 915 data collection reports were analyzed and comprised a total of 33,005 weatherized low-income dwellings consisting of Single Family, Mobile, and Multifamily homes, and Licensed Community Care Facilities. Results of the analysis are presented in the following sections. See Appendix C for a list of CAL LIHEAP Service Providers along with the number of dwellings weatherized by each provider.

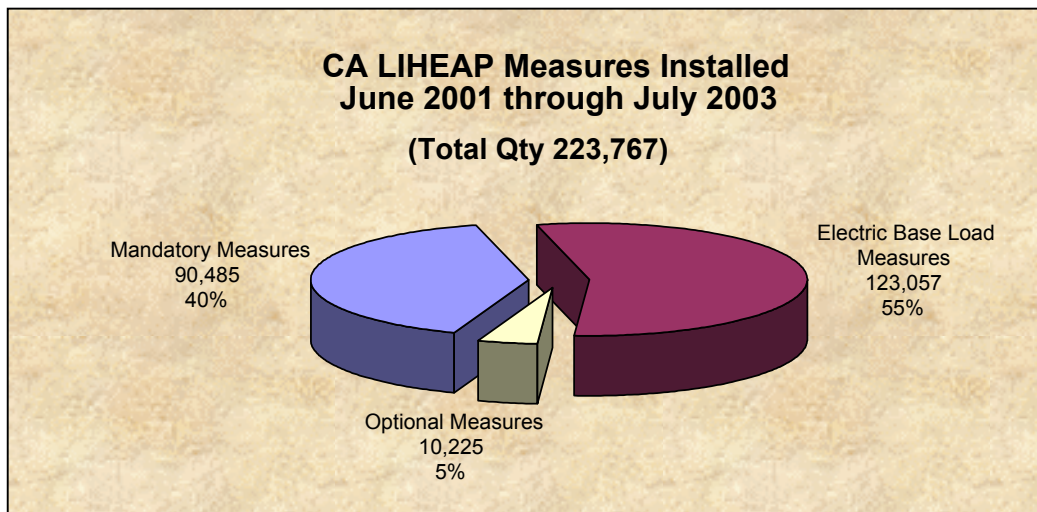
## **Measures Installed**

This section provides a summary of CAL LIHEAP weatherization measures installed in the months of June 2001 through July 2003. Only those measures that were established to have an energy impact are included in the table below (\*unit of measure is per dwelling unless otherwise specified).

<b>CAL LIHEAP Wx Measures Installed-June 2001 through July 2003</b>		
<b>MANDATORY MEASURES*</b>		<b>Quantity</b>
1	Glass Replacement	2,596
2	Duct and Register Repair/Replacement	701
3	Minor Envelope Repair	10,616
4	Evap. Cooler/Air Conditioner Vent Cover (Inside)	1,065
5	a. Ceiling Insulation R11	184
	c. Ceiling Insulation R19	651
	e. Ceiling Insulation R30	447
	f. Ceiling Insulation R38	179
6	Low-Flow Showerhead, per device	11,465
7	Hot Water Faucet Restrictor, per device	21,290
8	Door Weatherstripping, per door	16,160
9	Water Heater Blanket	2,037
10	Water Heater Pipe Wrap	930
11	Duct Wrap	31
12	Switch/Outlet Gaskets	9,755
13	Caulking	9,033
14	Other Weatherstripping	3,345
<b>Total Mandatory Measures</b>		<b>90,485</b>
15	<b>Electric Base Load Measures</b>	
	a. Refrigerator Replacement	17,814
	b. Electric Water Heater Repair/Replacement	229
	c. Microwave Oven	19,466
	d. Thread-based Compact Fluorescent Lamps	84,288
	e. Hard-Wired Compact Fluorescent Lamps	1,260
<b>Total Electric Base Load Measures</b>		<b>123,057</b>
<b>OPTIONAL MEASURES</b>		
1	Ceiling Fans	2,777
2	Evaporative Cooler Repair	87
3	Filter Replacement for A/C or Furnace, Filters Only	2,316
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal	751
5	Setback Thermostat	3,458
6	Other Optional Measures	836
<b>Total Optional &amp; Other Optional Measures</b>		<b>10,225</b>
<b>TOTAL CAL LIHEAP Wx MEASURES INSTALLED</b>		<b>223,767</b>

**Table 1: CAL LIHEAP Weatherization Measures Installed**

Included in Figure 1 below is a summary of the measures installed, grouped in the following three categories: 1) Mandatory Measures, 2) Electric Base Load Measures, and 3) Optional Measures.

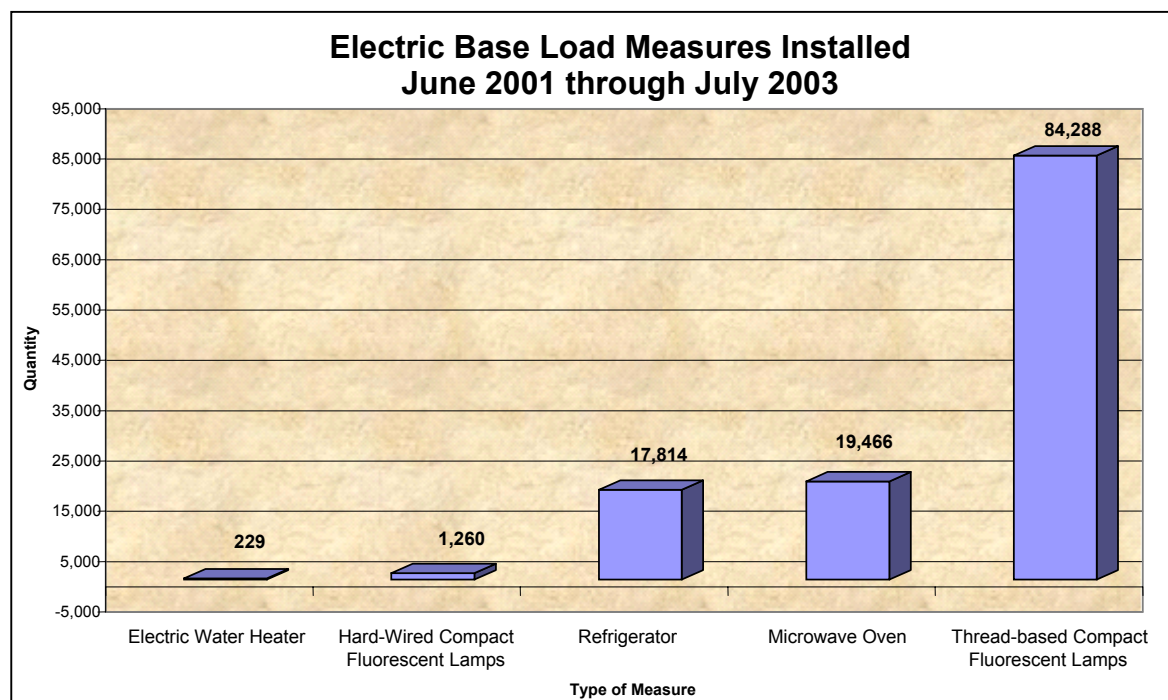


**Figure 1: CAL LIHEAP Measures Installed**

The Electric Base Load Measures was the largest group of measures installed by the CAL LIHEAP Service Providers. Over half (55%) of the measures installed (June 2001 through July 2003) were Electric Base Load Measures. Mandatory Measures (at 40%) were the second largest group of measures, and the least significant of the three groups was the Optional Measures at 5%.



Shown in Figure 2 below are the quantities of each Electric Base Load Measure installed by the CAL LIHEAP Service Providers.



**Figure 2: Electric Base Load Measures Installed**

Shown in Table 2 (pages 13 through 16) and Figures 3, 4 and 5 (pages 17,18 and 19) are the numbers of Mandatory, Electric Base Load, Optional, and Other Optional measures installed each month by the CAL LIHEAP Service Providers.

**CAL LIHEAP Weatherization Installation Summary**  
**Per Type of Measure**

Month	Type of Measure	Qty
June 2001	Mandatory	3,942
	Electric Base Load	2,674
	Optional	331
	Other Optional	54
<b>June Total</b>		<b>7,001</b>
July 2001	Mandatory	11,641
	Electric Base Load	10,069
	Optional	1,174
	Other Optional	95
<b>July Total</b>		<b>22,979</b>
August 2001	Mandatory	13,695
	Electric Base Load	28,936
	Optional	1,364
	Other Optional	169
<b>August Total</b>		<b>44,164</b>
September 2001	Mandatory	7,347
	Electric Base Load	11,636
	Optional	907
	Other Optional	91
<b>September Total</b>		<b>19,981</b>
October 2001	Mandatory	7,257
	Electric Base Load	10,815
	Optional	1,044
	Other Optional	60
<b>October Total</b>		<b>19,176</b>
November 2001	Mandatory	5,908
	Electric Base Load	10,143
	Optional	760
	Other Optional	43
<b>November Total</b>		<b>16,854</b>
December 2001	Mandatory	2,772
	Electric Base Load	9,282
	Optional	290
	Other Optional	30
<b>December Total</b>		<b>12,374</b>
<b>2001 CAL LIHEAP Totals</b>	<b>Mandatory</b>	<b>52,562</b>
	<b>Electric Base Load</b>	<b>83,555</b>
	<b>Optional</b>	<b>5,870</b>
	<b>Other Optional</b>	<b>542</b>
<b>2001 CAL LIHEAP Total</b>		<b>142,529</b>

**CAL LIHEAP Weatherization Installation Summary (continued)**  
**Per Type of Measure**

<b>Month</b>	<b>Type of Measure</b>	<b>Qty</b>
<b>January 2002</b>	Mandatory	3,008
	Electric Base Load	4,692
	Optional	168
	Other Optional	58
<b>January Total</b>		<b>7,926</b>
<b>February 2002</b>	Mandatory	6,082
	Electric Base Load	5,593
	Optional	513
	Other Optional	4
<b>February Total</b>		<b>12,192</b>
<b>March 2002</b>	Mandatory	3,297
	Electric Base Load	4,777
	Optional	263
	Other Optional	11
<b>March Total</b>		<b>8,348</b>
<b>April 2002</b>	Mandatory	4,944
	Electric Base Load	4,746
	Optional	538
	Other Optional	37
<b>April Total</b>		<b>10,265</b>
<b>May 2002</b>	Mandatory	3,886
	Electric Base Load	2,295
	Optional	444
	Other Optional	60
<b>May Total</b>		<b>6,685</b>
<b>June 2002</b>	Mandatory	2,042
	Electric Base Load	1,744
	Optional	278
	Other Optional	9
<b>June Total</b>		<b>4,073</b>
<b>July 2002</b>	Mandatory	2,866
	Electric Base Load	1,780
	Optional	331
	Other Optional	0
<b>July Total</b>		<b>4,977</b>
<b>August 2002</b>	Mandatory	1,533
	Electric Base Load	1,372
	Optional	112
	Other Optional	100
<b>August Total</b>		<b>3,117</b>

**CAL LIHEAP Weatherization Installation Summary (continued)**  
**Per Type of Measure**

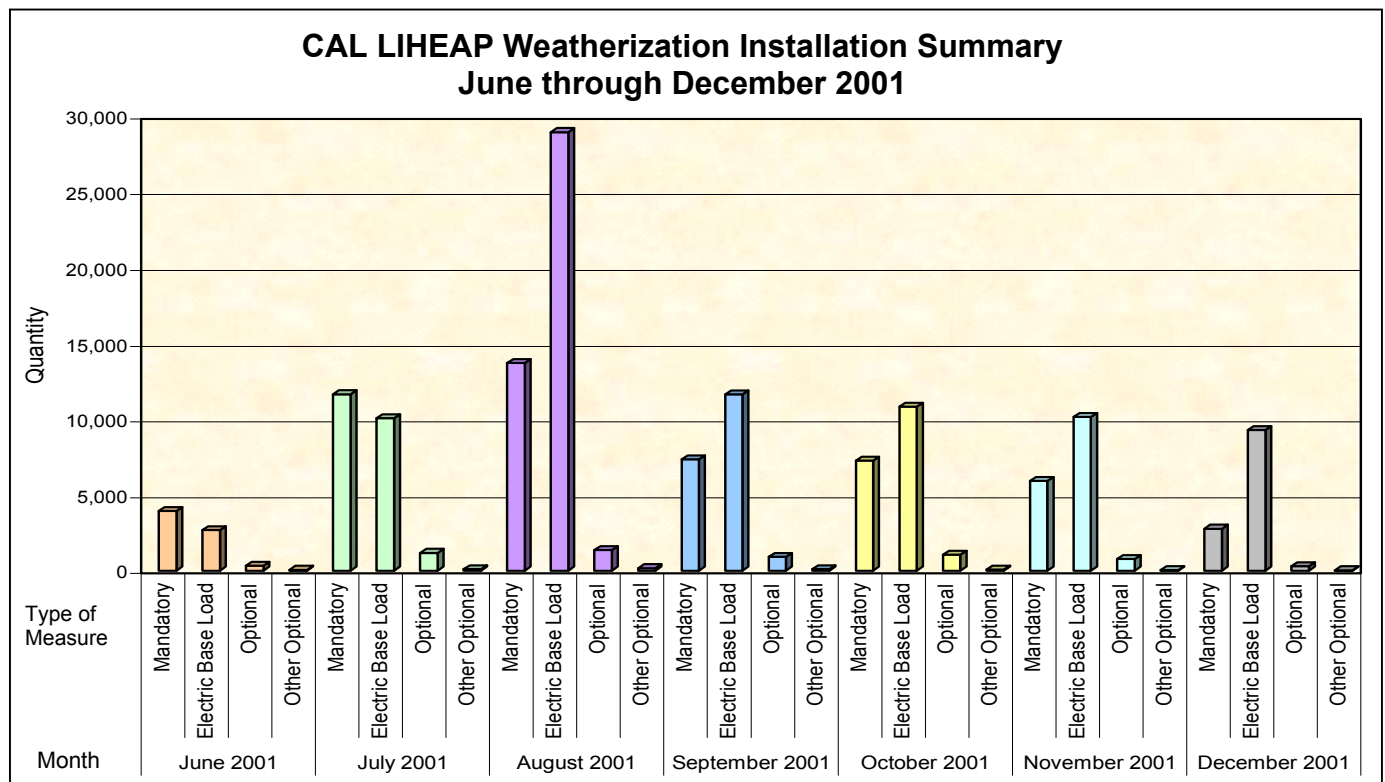
Month	Type of Measure	Qty
<b>September 2002</b>	Mandatory	3,275
	Electric Base Load	4,538
	Optional	274
	Other Optional	0
<b>September Total</b>		<b>8,087</b>
<b>October 2002</b>	Mandatory	2,844
	Electric Base Load	3,149
	Optional	216
	Other Optional	10
<b>October Total</b>		<b>6,219</b>
<b>November 2002</b>	Mandatory	2,077
	Electric Base Load	2,451
	Optional	177
	Other Optional	5
<b>November Total</b>		<b>4,710</b>
<b>December 2002</b>	Mandatory	1,638
	Electric Base Load	1,790
	Optional	129
	Other Optional	0
<b>December Total</b>		<b>3,557</b>
<b>2002 CAL LIHEAP Totals</b>	<b>Mandatory</b>	<b>37,492</b>
	<b>Electric Base Load</b>	<b>38,927</b>
	<b>Optional</b>	<b>3,443</b>
	<b>Other Optional</b>	<b>294</b>
<b>2002 CAL LIHEAP Total</b>		<b>80,156</b>
<b>January 2003</b>	Mandatory	23
	Electric Base Load	6
	Optional	1
	Other Optional	0
<b>January Total</b>		<b>30</b>
<b>February 2003</b>	Mandatory	0
	Electric Base Load	0
	Optional	0
	Other Optional	0
<b>February Total</b>		<b>0</b>
<b>March 2003</b>	Mandatory	408
	Electric Base Load	461
	Optional	75
	Other Optional	0
<b>March Total</b>		<b>944</b>

### CAL LIHEAP Weatherization Installation Summary (continued)

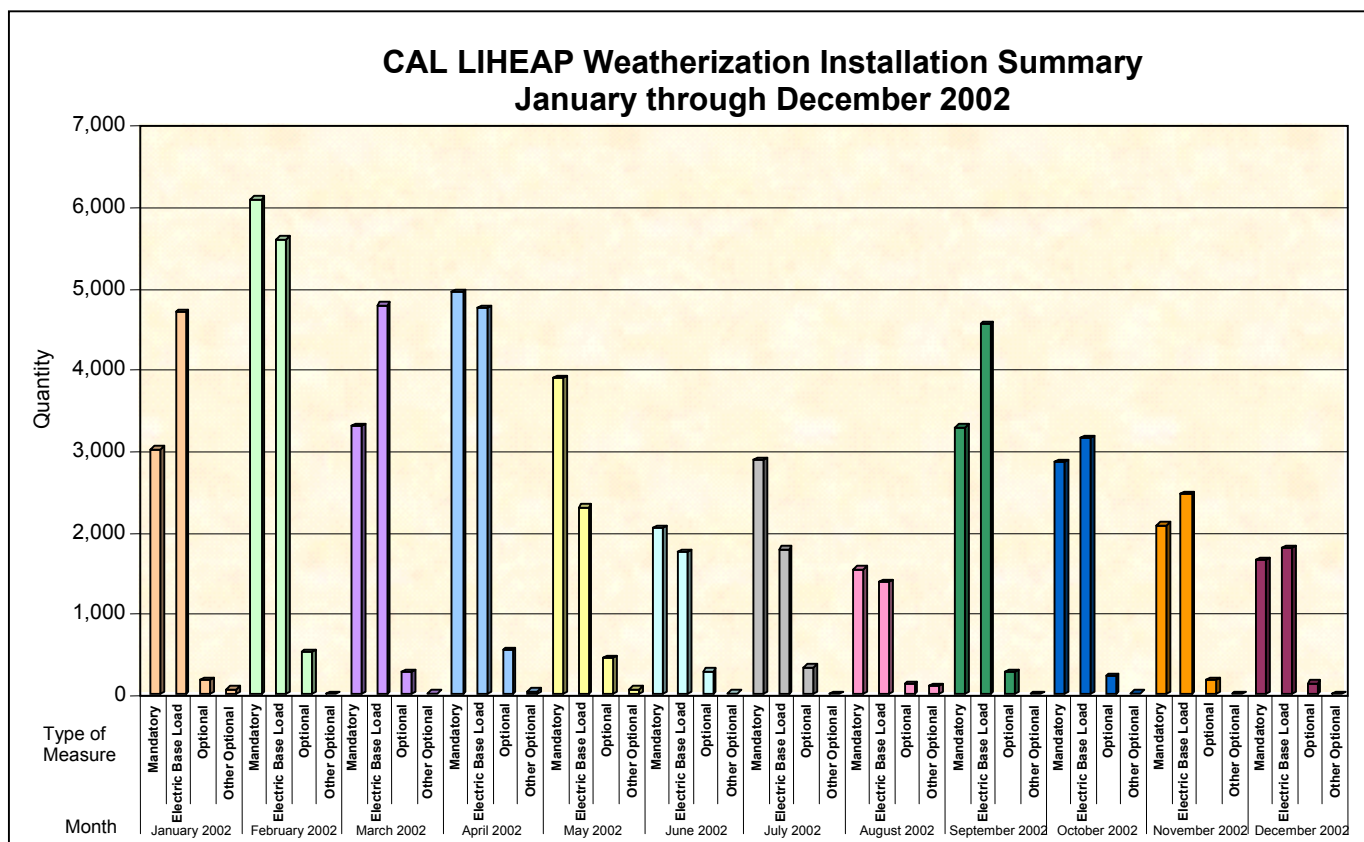
#### Per Type of Measure

Month	Type of Measure	Qty
April 2003	Mandatory	0
	Electric Base Load	0
	Optional	0
	Other Optional	0
April Total		0
May 2003	Mandatory	0
	Electric Base Load	0
	Optional	0
	Other Optional	0
May Total		0
June 2003	Mandatory	0
	Electric Base Load	52
	Optional	0
	Other Optional	0
June Total		52
July 2003	Mandatory	0
	Electric Base Load	56
	Optional	0
	Other Optional	0
July Total		56
2003 CAL LIHEAP Totals	Mandatory	431
	Electric Base Load	575
	Optional	76
	Other Optional	0
2003 CAL LIHEAP Total		1,082
Totals June 2001 through July 2003	Mandatory	90,485
	Electric Base Load	123,057
	Optional	9,389
	Other Optional	836
CAL LIHEAP Program Totals		223,767

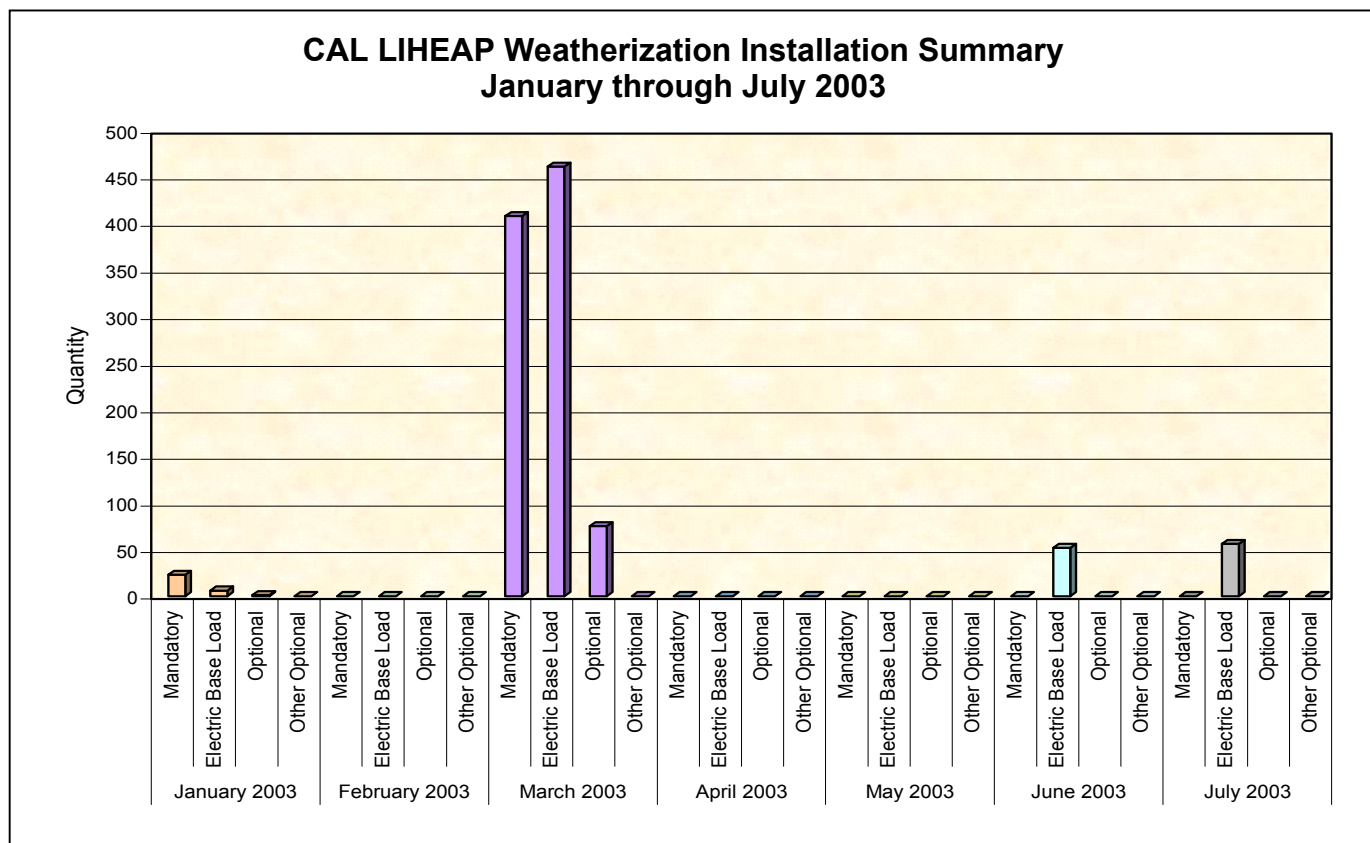
Table 2: CAL LIHEAP Installation Summary



**Figure 3: CAL LIHEAP 2001 Installation Summary**



**Figure 4: CAL LIHEAP 2002 Installation Summary**



**Figure 5: CAL LIHEAP 2003 Installation Summary**



### **Estimated Energy Savings**

Overall, from June 1, 2001, through July 31, 2003, weatherization services yielded 14,666,325 kilowatt-hour (kWh) savings. The table below shows the annual kilowatt-hour savings for all weatherization measures installed per dollar expended.

Annual Kilowatt Hours Saved	WX Dollars Expended	Kilowatt Hours Saved per dollar expended
<b>14,666,325</b>	<b>\$33,197,892</b>	<b>0.441784828</b>

The total estimated energy savings for CAL LIHEAP was 14,666,325 kWh of electricity as well as, 584,269 therms of gas. The estimated energy saved was enough to provide:

- Electricity to 3,006 homes<sup>1</sup> for one year and gas to 1,385 homes<sup>2</sup> for one year, or
- Electric water heating<sup>3</sup> to 100 homes for 53 years, or
- Central air conditioning<sup>4</sup> to 100 homes for 108 years, or
- Space heating<sup>5</sup> to 100 homes for 17 years.

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The above estimates are based on the following data taken from the Pacific Gas and Electric Company 1995 Residential Energy Survey Report:

<sup>1</sup>600-1,249 square foot home at 4,879 kWh per year

<sup>2</sup>600-1,249 square foot home at 422 therms per year

<sup>3</sup>Unit Energy Consumption (UEC) of 2,785 kWh per year

<sup>4</sup>UEC of 1,364 kWh per year

<sup>5</sup>UEC of 348 therms per year

This section summarizes estimated yearly energy savings for measures installed during the period of June 2001 through July 2003. The total projected yearly energy savings in kWh and therms for each measure installed was estimated and is shown in Table 3 below (\*unit of measure is per dwelling unless otherwise specified.)

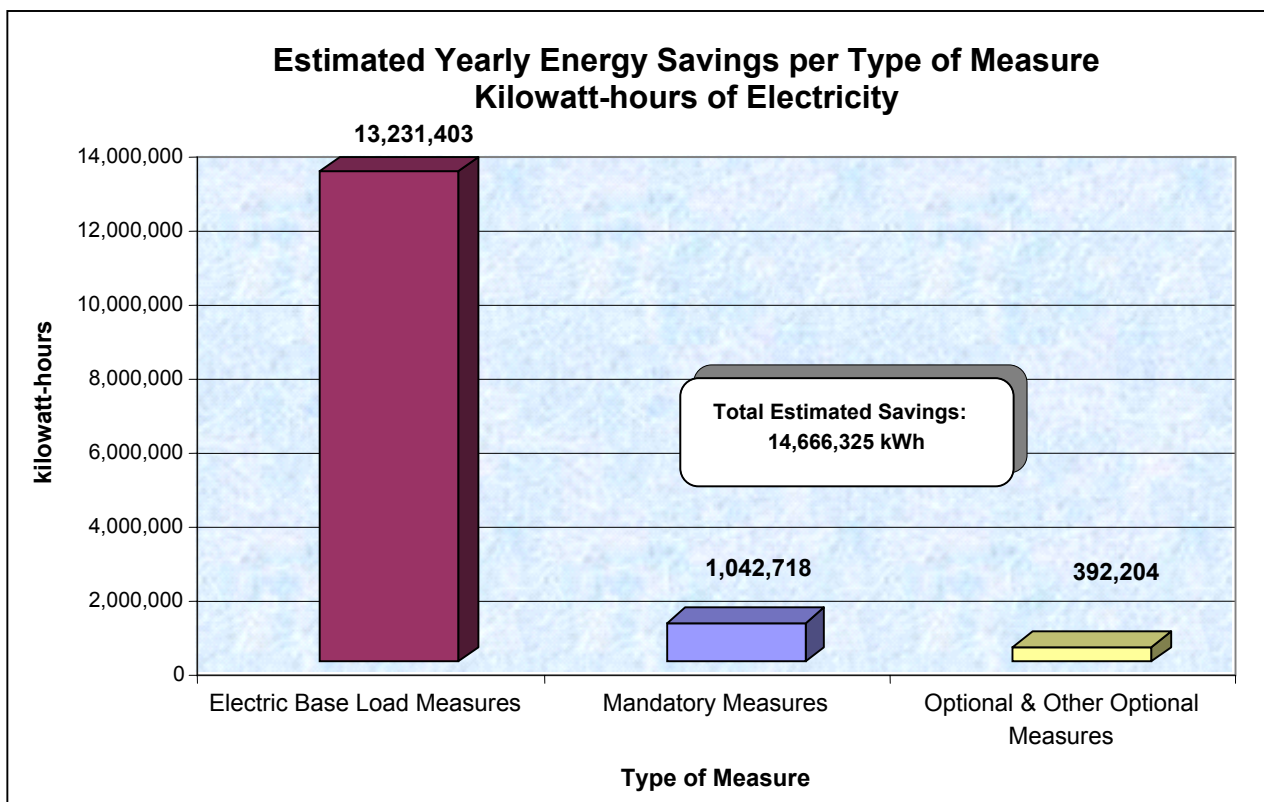
**Estimated Yearly Energy Savings per Measure  
June 2001 through July 2003**

<b>MANDATORY MEASURES</b>		<b>kWh</b>	<b>Therms</b>
1	Glass Replacement	3,999	5,635
2	Duct and Register Repair/Replacement	54,573	9,356
3	Minor Envelope Repair	184,434	40,889
4	Evap. Cooler/Air Conditioner Vent Cover (Inside)	0	2,257
5	a. Ceiling Insulation R11	8,343	3,247
	c. Ceiling Insulation R19	66,479	11,909
	e. Ceiling Insulation R30	46,083	9,219
	f. Ceiling Insulation R38	7,237	2,517
6	Low-Flow Showerhead, per device	313,636	88,151
7	Hot Water Faucet Restrictor, per device	235,660	59,251
8	Door Weatherstripping, per door	21,437	15,851
9	Water Heater Blanket	49,909	21,173
10	Water Heater Pipe Wrap	13,939	3,105
11	Duct Wrap	7,936	7,593
12	Switch/Outlet Gaskets	3,967	6,730
13	Caulking	20,954	10,875
14	Other Weatherstripping	4,132	4,949
<b>Total Mandatory Measures</b>		<b>1,042,718</b>	<b>302,707</b>
15	<b>Electric Base Load Measures</b>		
	a. Refrigerator Replacement	5,868,585	0
	b. Electric Water Heater Repair/Replacement	29,541	0
	c. Microwave Oven	219,499	130,896
	d. Thread-based Compact Fluorescent Lamps	7,016,833	0
	e. Hard-Wired Compact Fluorescent Lamps	96,945	0
<b>Total Electric Base Load Measures</b>		<b>13,231,403</b>	<b>130,896</b>
<b>OPTIONAL MEASURES</b>			
1	Ceiling Fans	129,030	0
2	Evaporative Cooler Repair	2,664	0
3	Filter Replacement for A/C or Furnace, Filters Only	5,452	1,567
4	Filter Replacement for A/C or Furnace, Filters + Repl. Signal	1,990	639
5	Setback Thermostat	249,986	146,300
6	Other Optional Measures	3,083	2,160
<b>Total Optional &amp; Other Optional Measures</b>		<b>392,204</b>	<b>150,666</b>
<b>TOTAL ESTIMATED YEARLY ENERGY SAVINGS</b>		<b>14,666,325</b>	<b>584,269</b>

**Table 3: Yearly Estimated Energy Savings per Measure**

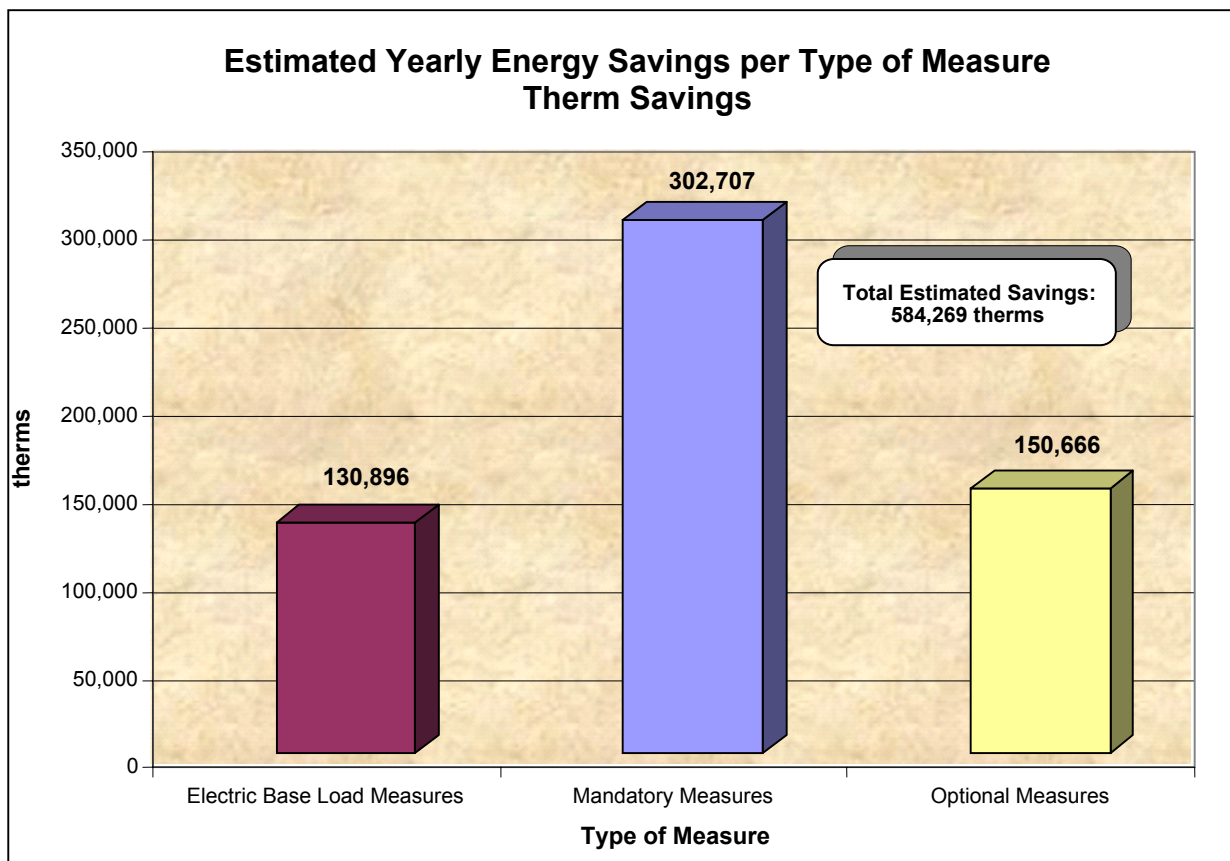
Figure 6 on this page and Figure 7 on the next page graphically depict energy savings per type of measure (Electric Base Load, Mandatory, and Optional) in kilowatt-hours (Figure 6) and therms (Figure 7).

The Electric Base Load Measures had the largest estimated kilowatt-hour savings compared to the Mandatory and Optional measures, as shown in Figure 6. This was expected, as the Electric Base Load Measures were given the highest installation priority in the CAL LIHEAP program.



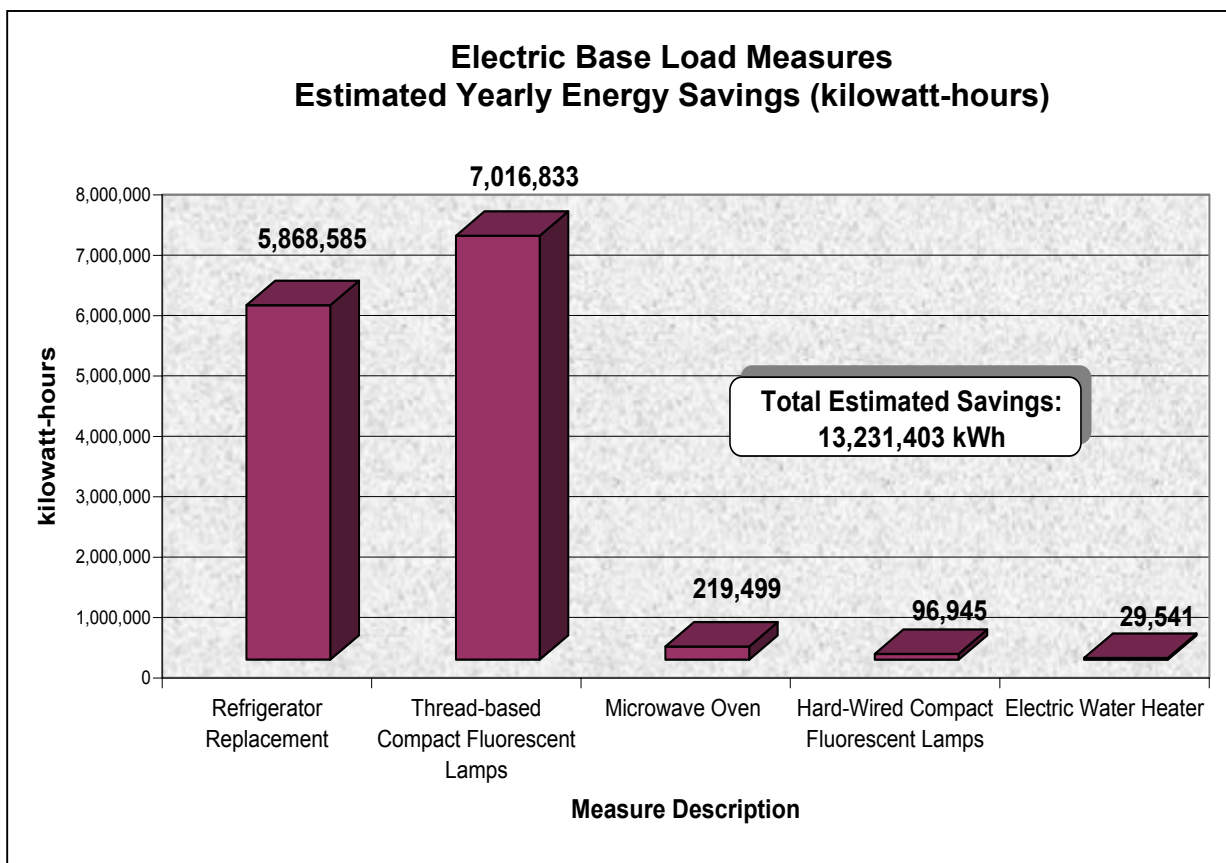
**Figure 6: Estimated Yearly Kilowatt-hour Savings per Type of Measure**

Depicted in Figure 7 below are estimated therm savings associated with each type of measure. Because most of the Mandatory Measures focus on the building shell performance, the highest projected savings were associated with natural gas and propane savings as opposed to kilowatt-hour savings, since most buildings are heated with gas. However, the Electric Base Load Measures were projected to achieve some fuel savings, due to the potential savings associated with the installation of microwave ovens, and some limited increased performance of the building shell and the mechanical systems.



**Figure 7: Estimated Yearly Therm Savings per Type of Measure**

The estimated yearly kilowatt-hour savings associated with the installation of each Electric Base Load Measure is depicted in Figure 8. As shown in the graph, Thread-based Compact Fluorescent Lamps measure had the highest estimated yearly kilowatt-hour savings impact in the CAL LIHEAP Program. The Refrigerator Replacement measure also proved to have a very positive savings impact.



**Figure 8: Electric Base Load Measures Estimated Energy Savings**

Included in Table 4 (pages 25 through 28) is a summary of projected yearly energy savings associated with installation of CAL LIHEAP weatherization measures per month; for the months of June 2001 through July 2003.

### Estimated Yearly Energy Savings Per Measure

Month	Type of Measure	kWh	Therms
June 2001	Mandatory	28,555	14,236
	Electric Base Load	256,546	3,139
	Optional	8,908	4,729
	Other Optional	175	121
June Total		294,184	22,225
July 2001	Mandatory	119,742	35,271
	Electric Base Load	1,120,859	7,949
	Optional	49,040	18,021
	Other Optional	962	164
July Total		1,290,605	61,405
August 2001	Mandatory	165,341	48,307
	Electric Base Load	2,929,563	37,901
	Optional	67,150	19,939
	Other Optional	237	818
August Total		3,162,291	106,965
September 2001	Mandatory	79,023	24,672
	Electric Base Load	1,368,921	13,334
	Optional	35,788	12,597
	Other Optional	480	124
September Total		1,484,212	50,727
October 2001	Mandatory	66,497	27,402
	Electric Base Load	1,630,119	14,314
	Optional	50,061	21,061
	Other Optional	49	74
October Total		1,746,726	62,851
November 2001	Mandatory	45,994	19,257
	Electric Base Load	1,265,828	11,290
	Optional	12,985	14,035
	Other Optional	566	184
November Total		1,325,374	44,766
December 2001	Mandatory	27,134	7,560
	Electric Base Load	741,881	18,173
	Optional	6,117	3,279
	Other Optional	42	64
December Total		775,174	29,075
2001 CAL LIHEAP Totals	Mandatory	532,287	176,705
	Electric Base Load	9,313,717	106,099
	Optional	230,051	93,661
	Other Optional	2,511	1,548
2001 CAL LIHEAP Total		10,078,566	378,014

**Estimated Yearly Energy Savings Per Measure (continued)**

Month	Type of Measure	kWh	Therms
<b>January 2002</b>	Mandatory	43,186	12,626
	Electric Base Load	499,699	7,027
	Optional	3,127	3,116
	Other Optional	42	188
<b>January Total</b>		<b>546,054</b>	<b>22,957</b>
<b>February 2002</b>	Mandatory	111,914	17,863
	Electric Base Load	494,856	2,909
	Optional	8,748	8,500
	Other Optional	11	17
<b>February Total</b>		<b>615,529</b>	<b>29,289</b>
<b>March 2002</b>	Mandatory	57,508	13,439
	Electric Base Load	516,828	2,678
	Optional	6,601	4,320
	Other Optional	47	47
<b>March Total</b>		<b>580,984</b>	<b>20,483</b>
<b>April 2002</b>	Mandatory	71,941	14,253
	Electric Base Load	451,012	3,370
	Optional	37,459	8,941
	Other Optional	256	86
<b>April Total</b>		<b>560,668</b>	<b>26,649</b>
<b>May 2002</b>	Mandatory	63,242	11,152
	Electric Base Load	257,620	1,354
	Optional	16,760	3,634
	Other Optional	134	208
<b>May Total</b>		<b>337,756</b>	<b>16,347</b>
<b>June 2002</b>	Mandatory	32,422	5,947
	Electric Base Load	130,352	374
	Optional	10,441	4,472
	Other Optional	19	20
<b>June Total</b>		<b>173,234</b>	<b>10,814</b>
<b>July 2002</b>	Mandatory	30,358	10,359
	Electric Base Load	164,507	1,210
	Optional	26,994	4,388
	Other Optional	0	0
<b>July Total</b>		<b>221,858</b>	<b>15,956</b>
<b>August 2002</b>	Mandatory	20,057	4,390
	Electric Base Load	159,555	547
	Optional	4,712	1,201
	Other Optional	0	0
<b>August Total</b>		<b>184,325</b>	<b>6,138</b>
<b>September 2002</b>	Mandatory	30,670	11,404
	Electric Base Load	375,119	2,045
	Optional	17,523	4,920
	Other Optional	0	0
<b>September Total</b>		<b>423,311</b>	<b>18,368</b>



**Estimated Yearly Energy Savings Per Measure (continued)**

Month	Type of Measure	kWh	Therms
<b>October 2002</b>	Mandatory	19,891	9,620
	Electric Base Load	305,830	1,152
	Optional	8,766	4,323
	Other Optional	35	34
<b>October Total</b>		<b>334,522</b>	<b>15,129</b>
<b>November 2002</b>	Mandatory	17,219	7,844
	Electric Base Load	337,202	1,728
	Optional	13,364	2,777
	Other Optional	27	13
<b>November Total</b>		<b>367,812</b>	<b>12,363</b>
<b>December 2002</b>	Mandatory	10,362	5,490
	Electric Base Load	193,958	346
	Optional	4,571	2,546
	Other Optional	0	0
<b>December Total</b>		<b>208,891</b>	<b>8,382</b>
<b>2002 CAL LIHEAP Totals</b>	<b>Mandatory</b>	<b>508,769</b>	<b>124,388</b>
	<b>Electric Base Load</b>	<b>3,886,538</b>	<b>24,739</b>
	<b>Optional</b>	<b>159,065</b>	<b>53,138</b>
	<b>Other Optional</b>	<b>572</b>	<b>612</b>
<b>2002 CAL LIHEAP Total</b>		<b>4,554,944</b>	<b>202,877</b>
<b>January 2003</b>	Mandatory	46	59
	Electric Base Load	897	0
	Optional	5	1
	Other Optional	0	0
<b>January Total</b>		<b>947</b>	<b>60</b>
<b>February 2003</b>	Mandatory	0	0
	Electric Base Load	0	0
	Optional	0	0
	Other Optional	0	0
<b>February Total</b>		<b>0</b>	<b>0</b>
<b>March 2003</b>	Mandatory	1,617	1,555
	Electric Base Load	11,080	0
	Optional	0	1,706
	Other Optional	0	0
<b>March Total</b>		<b>12,697</b>	<b>3,260</b>
<b>April 2003</b>	Mandatory	0	0
	Electric Base Load	0	0
	Optional	0	0
	Other Optional	0	0
<b>April Total</b>		<b>0</b>	<b>0</b>

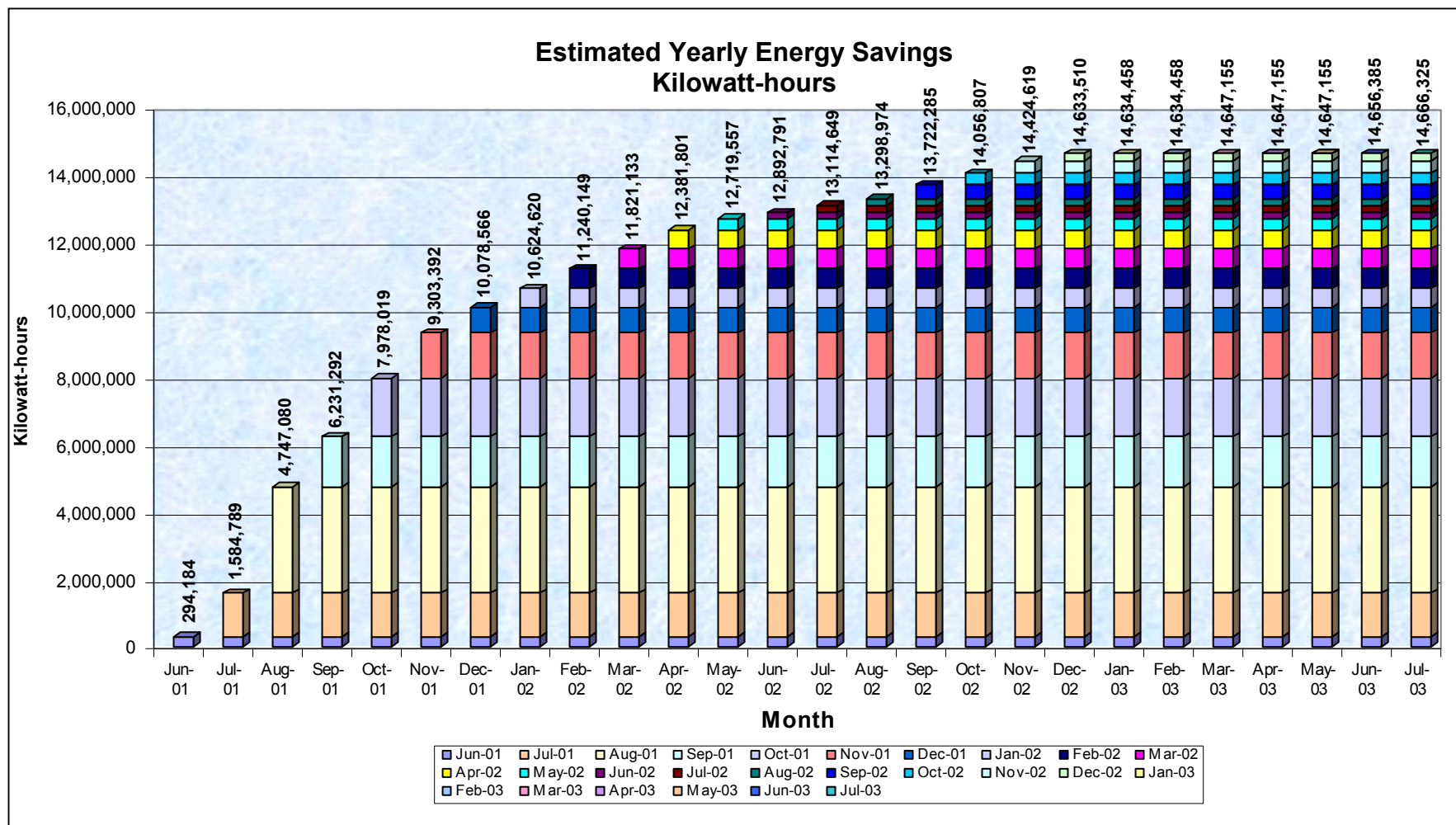


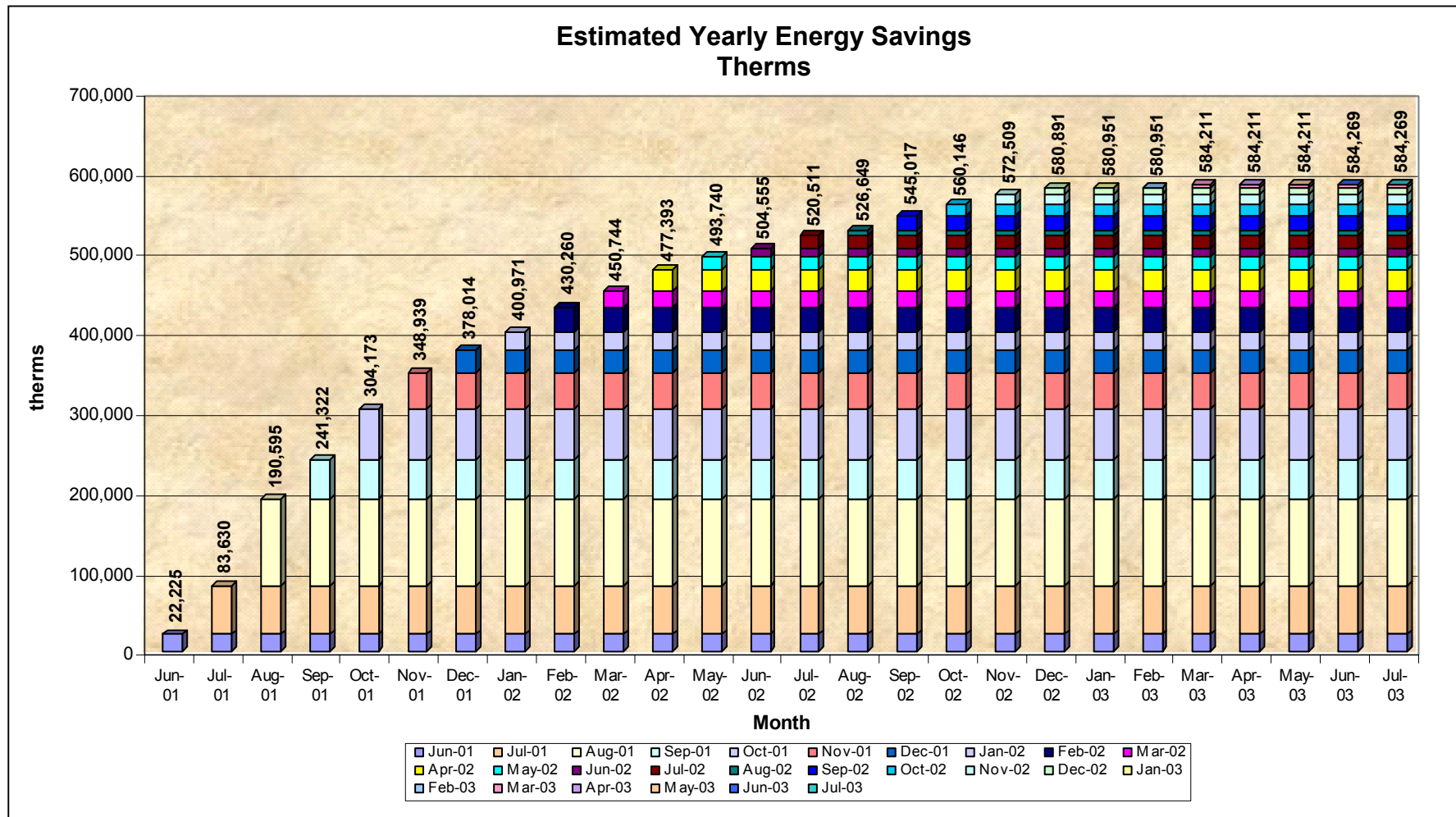
**Estimated Yearly Energy Savings Per Measure (continued)**

Month	Type of Measure	kWh	Therms
<b>May 2003</b>	Mandatory	0	0
	Electric Base Load	0	0
	Optional	0	0
	Other Optional	0	0
<b>May Total</b>		<b>0</b>	<b>0</b>
<b>June 2003</b>	Mandatory	0	0
	Electric Base Load	9,230	58
	Optional	0	0
	Other Optional	0	0
<b>June Total</b>		<b>9,230</b>	<b>58</b>
<b>July 2003</b>	Mandatory	0	0
	Electric Base Load	9,940	0
	Optional	0	0
	Other Optional	0	0
<b>July Total</b>		<b>9,940</b>	<b>0</b>
<b>2003 CAL LIHEAP Totals</b>	<b>Mandatory</b>	<b>1,663</b>	<b>1,614</b>
	<b>Electric Base Load</b>	<b>31,147</b>	<b>58</b>
	<b>Optional</b>	<b>5</b>	<b>1,707</b>
	<b>Other Optional</b>	<b>0</b>	<b>0</b>
<b>2003 CAL LIHEAP Total</b>		<b>32,815</b>	<b>3,378</b>
<b>Totals June 2001 through June 2003</b>	<b>Mandatory</b>	<b>1,042,718</b>	<b>302,707</b>
	<b>Electric Base Load</b>	<b>13,231,403</b>	<b>130,896</b>
	<b>Optional</b>	<b>389,121</b>	<b>148,506</b>
	<b>Other Optional</b>	<b>3,083</b>	<b>2,160</b>
<b>CAL LIHEAP Program Totals</b>		<b>14,666,325</b>	<b>584,269</b>

**Table 4: Estimated Yearly Energy Savings  
 June 2001 through July 2003**

Shown in Figures 9 and 10 are the monthly cumulative estimated kilowatt-hour and therm savings for CAL LIHEAP. Appendix C contains a summary of estimated yearly energy savings for the 45 CAL LIHEAP Service Providers and two (2) Native American Indian providers.





**Figure 10: Cumulative Monthly Therm Savings**



## Program Accomplishments

(June 1, 2001, through July 31, 2003)

### Households Served

As noted above, CSD contracted with forty-five (45) public and private community based organizations and two (2) Native American Indian organizations to provide CAL LIHEAP services to California's low-income population. During the period of June 1, 2001, through July 31, 2003, CAL LIHEAP Local Service Providers served:

#### **152,221** low-income households:

- 42,718 households in a crisis situation received ECIS assistance.
- 77,082 households received CAP assistance.
- 32,421 homes weatherized for energy efficiency.\*
- 22 Licensed Community Care Facilities weatherized for energy efficiency.\*
  - 19,392 refrigerators installed.\*
  - 290 electric water heaters installed.\*
  - 20,012 microwave ovens installed.\*
  - 87,980 compact fluorescent lamps installed.\*

#### **186,613** Vulnerable Population (VP) Individuals:

- 47,915 Elderly
- 46,242 Disabled
- 31,773 Limited-English-Speaking
- 1,421 Migrant Farmworkers
- 1,948 Seasonal Farmworkers
- 57,314 Children (0-5)

CSD strived to serve each vulnerable population group at a level comparable to their percentage of California's total population. The chart below shows the results of the most recent data in respect to service to vulnerable populations with CAL LIHEAP funds.

Vulnerable Populations	Population Based on 1990 Census	% of Population	% of Individuals served under CAL LIHEAP
Children	2,376,474	7.99%	12.55%
Elderly	4,224,441	14.20%	10.49%
Disabled	2,353,808	7.91%	10.13%
Limited English Speaking	2,648,803	8.90%	6.96%
Migrant and Seasonal Farmworkers	938,758	3.15%	0.74%

\*Please reference page 7 for an explanation of the difference in the numbers reported to CSD and RHA.

### **Additional Funding for Vulnerable Populations**

Senate Bill 5X required CSD to examine the penetration of other energy programs, including, but not limited to, those provided through federal LIHEAP, utility companies and other parties, to identify the adequacy of services to elderly persons, disabled persons, limited-English-speaking persons, migrant and seasonal farmworkers and households with very young children. The legislation also mandated that CAL LIHEAP funds be distributed to ensure that vulnerable populations have comparable access to energy programs.

Unfortunately, none of the existing energy programs, with the exception of CAL LIHEAP, captured data on the vulnerable populations specified in SB 5X. The federal LIHEAP program captures data on the elderly, the disabled, and households with very young children; however, data on limited-English-speaking persons, and migrant and seasonal farmworkers is not required to be collected. CSD required the CAL LIHEAP Local Service Providers to report on the vulnerable populations specified in SB 5X; however, in order to obtain an adequate amount of data, it was necessary for CSD to collect several months worth of information in the CAL LIHEAP program.

As shown in the previous six legislative reports, the penetration rate for several of the vulnerable populations was not adequate. However, since CSD consistently monitored the penetration rate of services to both the elderly and migrant and seasonal farmworker populations, CSD's Director was able to mitigate the deficiencies affecting the elderly and migrant and seasonal farmworkers by allocating \$3.8 million from the 2001-2002 Petroleum Violation Escrow Account (PVEA) funds for weatherization services and energy cash assistance to the underserved populations.

#### **Migrant and Seasonal Farmworkers**

CSD's Director awarded \$500,000 of Community Services Block Grant (CSBG) Discretionary funding and \$1.8 million in PVEA funds to La Cooperativa Campesina de California and its network of Migrant Seasonal Farmworker agencies to provide start up costs for their leveraging activities with Pacific Gas and Electric Company (PG&E) and Southern California Edison (SCE) Company. La Cooperativa provided outreach and intake to migrant and seasonal farmworker households and coordinated the replacement of refrigerators and the installation of compact fluorescent bulbs in these same households. La Cooperativa was successful in leveraging \$3,942,900 dollars in contracts with PG&E and SCE. Over the contract term, June 1, 2001, through December 31, 2002, La Cooperativa installed 192,921 compact fluorescent bulbs and 13,683 refrigerators in 43,157 eligible migrant and seasonal farmworker households.

### Elderly

In addition, CSD's Director awarded an additional \$2 million in PVEA funds to Local Service Providers to be used exclusively for the elderly vulnerable population. These funds were distributed in May 2002 to provide ECIS, CAP and WX assistance to this underserved population. Local Service Providers targeted and served only those eligible households in which the elderly person was the head of household. Elderly head of household was defined as: *The elderly person is responsible for paying more than half of the costs of maintaining the household.*

For the period of June 1, 2002, through July 31, 2003, using PVEA funds to supplement the CAL LIHEAP State General Funds and to target elderly head of households, CAL LIHEAP Local Service Providers served 2,674 low-income elderly households in addition to those elderly served on page 31. The 2,674 elderly households included:

- 2,958 Elderly
- 1,110 Disabled
- 272 Limited-English-Speaking
- 2 Migrant Farmworkers
- 3 Seasonal Farmworkers
- 93 Children

**8,318** weatherization measures were installed including:

- 293 Replacement Refrigerators
- 6 Electric Water Heaters
- 261 Microwave Ovens
- 2,274 Compact Fluorescent Lamps

### Native American Indians

In January 2002, CSD set-aside 0.7% of the CAL LIHEAP funds to target Native American Indians. CSD funded two contractors to serve the entire Native American Indian population throughout the State. The Native American Contractors continued to provide CAL LIHEAP services through December 31, 2003, and served 1,019 Native American households including:

- 231 Elderly
- 226 Disabled
- 21 Limited-English-Speaking
- 3 Migrant Farmworker
- 10 Seasonal Farmworkers
- 366 Children



### Estimated Unmet Need

The program objectives as defined by SB 5X were to 1) increase energy conservation and reduce demand for energy services in low-income households, 2) assure that the most vulnerable households cope with high energy costs and 3) increase participation in the federal LIHEAP program.

Shown below is the estimated unmet need for low-income persons at or below 250% of the Federal Poverty level.

Number of Households at or below 250% of Federal Poverty level.	5,145,014
Number of Households Served Under CAL LIHEAP	152,221
<b>Estimated Number of Low-Income Households Unserved</b>	<b>4,992,793</b> <b>97.04%</b>



### Automated Data Collection and Reporting

In 1999-2000, CSD developed, designed and implemented an automated data collection and reporting system to continuously collect and track federal LIHEAP client data. The *California LIHEAP Automated Services System (CLASS)*, facilitates the use of the Extranet for on-line data entry and data file transfer between the department and its network of contracting LIHEAP/CAL LIHEAP Local Service Providers. At the onset of CAL LIHEAP, CLASS was redesigned to collect CAL LIHEAP eligible households in addition to federal LIHEAP data.

CLASS revolutionizes the intake process at the local level. First, the method of CLASS On-line Entry, allows local service providers to enter client data directly into CSD's databases. Entered data is then evaluated for eligibility purposes (income and priority). The second method of Data-Base Transfer (DBT), allows those local service providers, using stand alone database platforms, to support the intake processes of CAP and ECIS, and to provide CSD with client data approved for benefits through the means of data file transfer. Essentially, DBT service providers provide data file extracts to CSD, in which they are up-loaded into CSD databases for benefit issuance. Once records are deemed eligible for payment, CSD will issue CAP and ECIS benefits by issuing a warrant or by directly crediting the client's utility account.

The CLASS On-line Entry assists CAL LIHEAP Service Providers in targeting and prioritizing the delivery of CAP and ECIS assistance. Based on approved local service provider priority plans, CLASS will rank those households, based on input client values in order of priority. Typically, priority is based on household incomes, energy burden, and

other factors such as members of target populations including households with children, elderly, disabled, limited-English-speaking and migrant and seasonal farmworkers.

CAL LIHEAP Local Service Providers used CLASS to monitor and maintain client data, monitor on-line reports, resolve ECIS and CAP payment issues and to transmit data for those clients completing a dual-purpose Energy Intake Form for those clients who wish to apply for the California Alternate Rates for Energy (CARE).

In addition to the CLASS System, CSD required CAL LIHEAP Local Service Providers to submit monthly reports on total expenditures, number of weatherization measures installed, types of dwellings weatherized, vulnerable populations served, households assisted, etc. This data was entered into CSD's Programs, Audits, Reports and Contracts (PARC) system where staff was able to monitor and assess the progress of each local service provider.



## **Conclusion**

Over the term of the CAL LIHEAP Program, Service Providers served over 152,221 low-income households and installed more than 246,084 weatherization measures, which resulted in savings of more than 14 million kilowatt-hours of electricity and 584,000 therms of gas that will provide electricity to 3,006 homes and gas to 1,385 homes for one year.

As reflected throughout this report, the CAL LIHEAP funding and increased flexibility within the CAL LIHEAP cash assistance and crisis intervention components allowed CAL LIHEAP Service Providers to significantly increase the number of households served, as well as reduce demands on California's energy grid. The flexibility allowed through the CAL LIHEAP Program to provide multiple payments and higher benefit levels helped to offset arrearages many clients experienced during California's energy crisis. Additionally, setting the eligibility level at 250% of the federal poverty guidelines enabled CAL LIHEAP Service Providers to also serve those clients considered the "working poor," who would otherwise go unserved under other energy assistance programs.

The CAL LIHEAP Program afforded CSD the opportunity to select weatherization measures with the largest potential electric savings and ease of installation. This resulted in a high number of measures being installed in a short time frame, which immediately reduced low-income clients' energy costs and energy usage, and will reduce energy consumption for years to come.

In conclusion, the 47 CAL LIHEAP service providers made tremendous strides to serve those low-income clients hit hardest by the California energy crisis. The immediate implementation of the CAL LIHEAP program and the services provided in the cash assistance and weatherization components offered much needed support to alleviate the energy concerns of the low-income households throughout the State of California. CSD would like to thank all of the service providers and persons who contributed to the success in fulfilling the goals of the CAL LIHEAP Program.



## APPENDICES

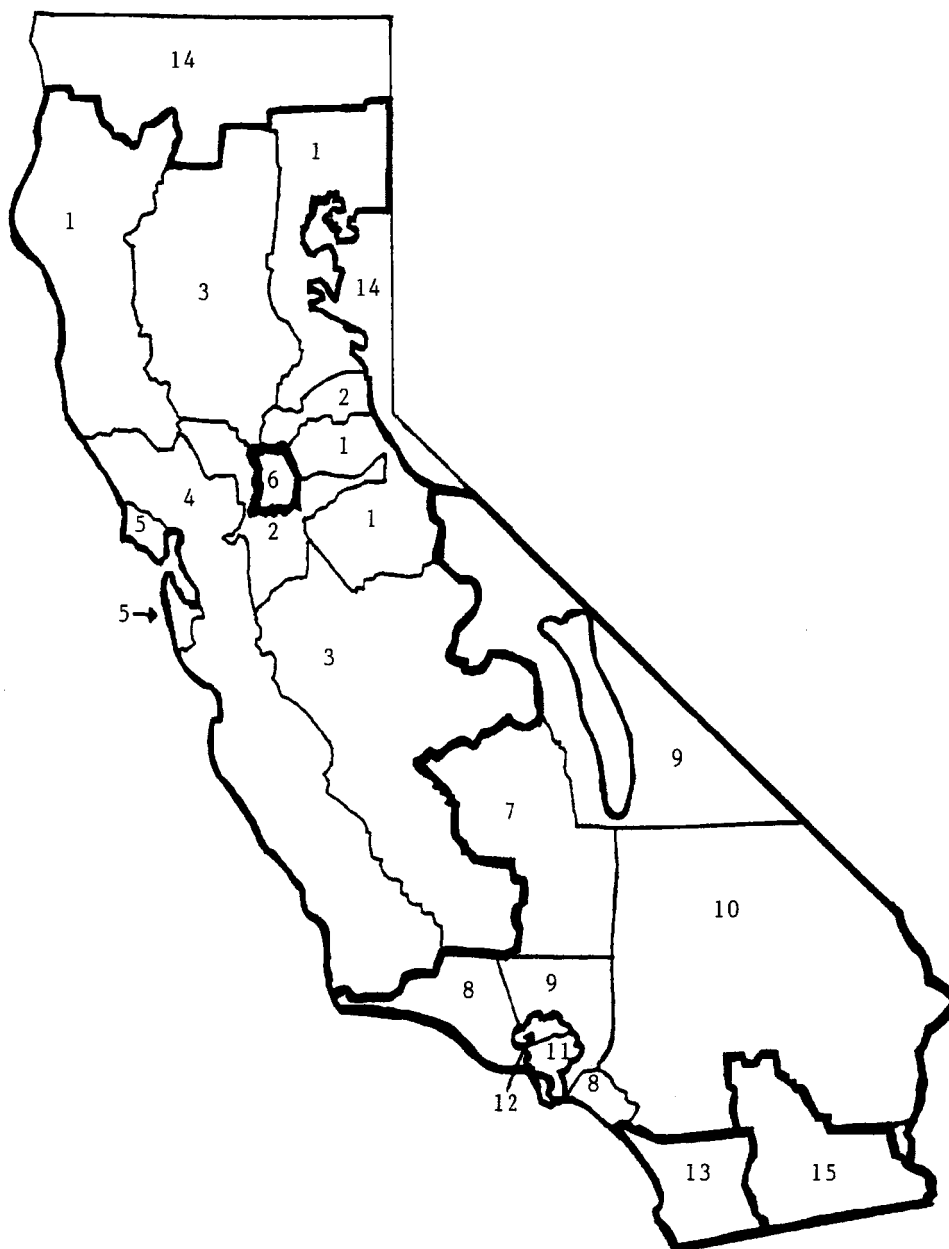


## Appendix A



Since CSD CAL LIHEAP is a statewide program, its service territory traverses multiple climate zones and includes customers from the four major investor-owned utilities. In order to apply the per measure energy impacts developed in the CEC Statewide 2001 Database for Energy Efficiency Resources (DEER) Update Study, each CAL LIHEAP Service Provider was assigned a CEC Forecasting Climate Zone that correlated with the utility in which the agency performs weatherization services. It should be noted that the CEC Forecasting Climate Zones used in the 2001 DEER Update study are different than the Title-24 climate zones. Appendix A contains 1) a map illustrating the CEC climate zones, and 2) a list of the 47 Service Providers with their corresponding CEC Forecasting Climate Zones.

### Map of California Energy Commission Forecasting Climate Zones



### CAL LIHEAP Providers Forecasting Climate Zones

#	CAL LIHEAP Service Provider	CEC Forecasting Climate Zone	Utility
1	Amador-Tuolumne Community Action Agency	1,14	PG&E
2	California Human Development Corp.	4	PG&E
3	Campesinos Unidos, Inc.	15	SDG&E
4	Central Valley Opportunity Center, Inc.	3	PG&E
5	City of Berkeley	4	PG&E
6	Colusa-Glenn-Trinity Community Action Agency	3	PG&E
7	Community Action Agency of Butte County, Inc.	3	PG&E
8	Community Action Agency of San Mateo County, Inc.	5	PG&E
9	Community Action Commission of Santa Barbara County	4	PG&E/SCE/SoCal Gas
10	Community Enhancement Services	9, 12, 16	SCE/SoCal Gas
11	Community Resource Project, Inc.	3	PG&E
12	Community Services and Employment Training, Inc.	7	SCE/SoCal Gas
13	Contra Costa County Community Services Department	4	PG&E
14	County of Riverside, Department of Community Action	10	SCE/SoCal Gas
15	Del Norte Senior Center	14	PG&E
16	Economic and Social Opportunities, Inc.	4	PG&E
17	Economic Opportunity Commission of San Luis Obispo, Inc.	4	PG&E
18	Economic Opportunity Council of San Francisco	5	PG&E
19	El Dorado County Department of Community Services	1, 14	PG&E
20	Energy Services, Community Action Board of Santa Cruz County, Inc.	4	PG&E
21	Fresno County Economic Opportunities Commission	3	PG&E
22	Great Northern Corporation	14	PG&E
23	Inyo Mono Advocates for Community Action, Inc.	9	SCE/SoCal Gas
24	Kern County Economic Opportunity Corp.	3, 7	PG&E/SCE/SoCal Gas
25	Kings Community Action Organization, Inc.	3	PG&E
26	Madera County Community Action Committee, Inc.	3	PG&E
27	Maravilla Foundation	9, 12, 16	SCE/SoCal Gas
28	Mariposa County Human Services Department	3	PG&E
29	Merced County Community Action Agency	3	PG&E
30	Metropolitan Area Advisory Committee	13	SDG&E
31	Nevada County Department of Housing and Community Services	1, 14	PG&E
32	North Coast Energy Services	1	PG&E
33	Orange County Community Development Council, Inc.	8	SCE/SoCal Gas
34	Pacific Asian Consortium in Employment	9, 12, 16	SCE/SoCal Gas
35	Plumas County Community Development Commission	1, 14	PG&E
36	Project Go, Inc.	2	PG&E
37	Redwood Community Action Agency	1	PG&E
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	4	PG&E
39	San Bernardino County Community Services Department	10	SCE/SoCal Gas
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.	2	PG&E
41	Self-Help Home Improvement Project, Inc.	3	PG&E
42	Spectrum Community Services, Inc.	4	PG&E
43	TEACH, Inc.	14	PG&E
44	Ventura County Commission on Human Concerns	8	SCE/SoCal Gas
45	Veterans in Community Services, Inc.	9, 12, 16	SCE/SoCal Gas
46	Northern California Indian Development Council (NCIDC)	Statewide	PG&E
47	Karuk	1,14	PG&E

## Appendix B



## Per Measure Energy Impact

### Utility Service Territory PG&E

**CEC Forecasting Climate Zones: 1 to 5 and 14**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
<b>WEATHERIZATION ACTIVITIES</b>					
1	Non-Blower Door Assessment (with attic)	No Energy Savings			
2	Non-Blower Door Assessment (without attic)	No Energy Savings			
3	Safety Check of Combustion Appliances (Pre-Test)	No Energy Savings			
4	Safety Check of Combustion Appliances (Post-Test)	No Energy Savings			
5	Blower Door Test	No Energy Savings			
6	Duct Leakage Pre-Test	No Energy Savings			
7	Duct Leakage Post-Test	No Energy Savings			
<b>MANDATORY MEASURES</b>					
1	Combustion Appliance Safety Hazard Repair/Replacement	No Energy Savings			
2	Glass Replacement(SF)	5.9	5.9	3.0	[1]
	Glass Replacement(MF)	1.1	1.1	2.0	[1]
3	Duct and Register Repair/Replacement (SF)	258.4	258.4	20.0	[1]
	Duct and Register Repair/Replacement (MF)	142.0	142.0	0.0	[1]
4	Minor Envelope Repair(SF)	67.9	32.5	7.2	[2]
	Minor Envelope Repair (MF)	66.5	25.5	0.7	[2]
5	Evap. Cooler/Air Conditioner Vent Cover (Inside)(SF)			2.6	[2]
	Evap. Cooler/Air Conditioner Vent Cover (Inside) (MF)			2.6	[2]
6	Attic Venting	No Energy Savings			
7	a. Ceiling Insulation R11 (SF)	271.7	129.9	29.0	[2]
	a. Ceiling Insulation R11 (MF)	266.1	102.0	2.9	[2]
	b. Kneewall Insulation R11	Included in Ceiling Insulation			
	c. Ceiling Insulation R19 (SF)	271.7	129.9	29.0	[2]
	c. Ceiling Insulation R19 (MF)	266.1	102.0	2.9	[2]
	d. Kneewall Insulation R19	Included in Ceiling Insulation			
	e. Ceiling Insulation R30 (SF)	271.7	129.9	29.0	[2]
	e. Ceiling Insulation R30 (MF)	266.1	102.0	2.9	[2]
	f. Ceiling Insulation R38 (SF)	271.7	129.9	29.0	[2]
	f. Ceiling Insulation R38 (MF)	266.1	102.0	2.9	[2]
8	Low-Flow Showerhead (MF)	185.7		9.7	[1]
	Low-Flow Showerhead (SF)	149.0		8.7	[1], [2]
9	Hot Water Faucet Restrictor(SF)	72.7		3.7	[1]
	Hot Water Faucet Restrictor(MF)	58.3		3.0	[1]
10	Door Weatherstripping (SF)	5.9	5.9	3.0	[1]
	Door Weatherstripping (MF)	3.0	3.0	1.0	[1], [2]

**Utility Service Territory PG&E**  
**CEC Forecasting Climate Zones: 1 to 5 and 14**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
11	Water Heater Blanket (SF)	251.0		13.0	[1]
	Water Heater Blanket (MF)	202.0		12.0	[1]
12	Water Heater Pipe Wrap (SF)	53.0		3.3	[2]
	Water Heater Pipe Wrap (MF)	53.0		3.3	[2]
13	Duct Wrap (SF)	124.0	124.0	10.0	[3]
	Duct Wrap (MF)	93.0	93.0	7.5	[3]
14	Switch/Outlet Gaskets (SF)	0.7	0.7	0.8	[1], [2]
	Switch/Outlet Gaskets (MF)	0.8	0.8	0.8	[1], [2]
15	Caulking, Per Dwelling (SF)	6.4	6.4	2.0	[1], [2]
	Caulking, Per Dwelling (MF)	3.0	3.0	1.0	[1], [2]
16	Other Weatherstripping (SF)	4.0	4.0	2.0	[1], [2]
	Other Weatherstripping (MF)	3.0	3.0	1.0	[1], [2]
17	<b>Electric Base Load Measures:</b>				
	a. Refrigerator Replacement (SF)	355			[1]
	a. Refrigerator Replacement (MF)	315			[1]
	a. Refrigerator (2nd Removed)	1077			[3]
	b. Electric Water Heater Repair	No Energy Savings			
	b. Electric Water Heater Replacement	129			[1]
	c. Microwave Oven (New)	273.3		28.8	[3]
	c. Microwave Oven (Replacement)	Calculation			[5]
	d. Thread-based Compact Fluorescent Lamps	Calculation			[5]
	e. Hard-Wired Compact Fluorescent Lamps	Calculation			[5]
<b>OPTIONAL MEASURES</b>					
1	Ceiling Fans(SF)		165.0		[3]
	Ceiling Fans (MF)		165.0		[3]
2	Evaporative Cooler Repair (SF)		177.6		[2]
	Evaporative Cooler Repair (MF)		177.6		[2]
3	Filter Replacement for A/C or Furnace, Filters Only (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters Only (MF)		3.8	0.1	[2]
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (MF)		3.8	0.1	[2]
5	Setback Thermostat, (SF)	330.0	330.0	60.0	[2]
	Setback Thermostat(MF)	170.1	170.1	23.0	[2]
6	<b>Other Optional Measures</b>				
a.	Floor Insulation (+36") Clearance	0.0	0.0	30.2	[1]
	Floor Insulation (-36") Clearance	0.0	0.0	30.2	[1]
b.	Electric Water Heater Timer (SF)	136.0	136.0		[3]
	Electric Water Heater Timer (MF)	102.0	102.0		[3]

**Utility Service Territory PG&E**  
**CEC Forecasting Climate Zones: 1 to 5 and 14**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
c.	Shadescreen (SF)		1.7		[1]
	Shadescreen (MF)		2.9		[1]
d.	Shutters (SF)			6.7	[1]
	Shutters (MF)			10.0	[1]
e.	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (SF)	7.8	7.8	6.7	[1]
	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (MF)			10.0	[1]
f.	Tinted Film (SF)		3.4	0.0	[1]
	Tinted Film (MF)		5.5	0.0	[1]
g.	Wood Fueled Space Heater(SF)	984.0		175.5	[3]
	Wood Fueled Space Heater(MF)	775.0		107.0	[3]

**Legend:**

SH - Space Heating  
AC - Central Air Conditioning  
SF - Single Family  
MF - Multi Family

[1] Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report, March 5, 2001

[2] 2001 DEER Update Study

[3] RHA Estimate

[4] Residential Energy Survey Report, 1994

[5] Calculation using kWh difference between old and new unit



**Utility Service Territory SCE/SoCal Gas**  
**CEC Forecasting Climate Zones: 7 to 10, 12 and 16**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
<b>WEATHERIZATION ACTIVITIES</b>					
1	Non-Blower Door Assessment (with attic)	No Energy Savings			
2	Non-Blower Door Assessment (without attic)	No Energy Savings			
3	Safety Check of Combustion Appliances (Pre-Test)	No Energy Savings			
4	Safety Check of Combustion Appliances (Post-Test)	No Energy Savings			
5	Blower Door Test	No Energy Savings			
6	Duct Leakage Pre-Test	No Energy Savings			
7	Duct Leakage Post-Test	No Energy Savings			
<b>MANDATORY MEASURES</b>					
1	Combustion Appliance Safety Hazard Repair/Replacement	No Energy Savings			
2	Glass Replacement(SF)	2.9	2.9	1.5	[1]
	Glass Replacement(MF)	0.8	0.8	0.5	[1]
3	Duct and Register Repair/Replacement (SF)	133.4	133.4	11.0	[1]
	Duct and Register Repair/Replacement (MF)	117.1	117.1	0.0	[1]
4	Minor Envelope Repair(SF)	67.9	32.5	7.2	[2]
	Minor Envelope Repair (MF)	66.5	25.5	0.7	[2]
5	Evap. Cooler/Air Conditioner Vent Cover (Inside)(SF)			2.6	[2]
	Evap. Cooler/Air Conditioner Vent Cover (Inside) (MF)			2.6	[2]
6	Attic Venting	No Energy Savings			
7	a. Ceiling Insulation R11 (SF)	271.7	129.9	18.9	[2]
	a. Ceiling Insulation R11 (MF)	266.1	102.0	18.9	[2]
	b. Kneewall Insulation R11	Included in Ceiling Insulation			
	c. Ceiling Insulation R19 (SF)	271.7	129.9	18.9	[2]
	c. Ceiling Insulation R19 (MF)	266.1	102.0	18.9	[2]
	d. Kneewall Insulation R19	Included in Ceiling Insulation			
	e. Ceiling Insulation R30 (SF)	271.7	129.9	18.9	[2]
	e. Ceiling Insulation R30 (MF)	266.1	102.0	18.9	[2]
	f. Ceiling Insulation R38 (SF)	271.7	129.9	18.9	[2]
	f. Ceiling Insulation R38 (MF)	266.1	102.0	18.9	[2]
8	Low-Flow Showerhead (MF)	185.7		9.7	[1]
	Low-Flow Showerhead (SF)	149.0		8.7	[1], [2]
9	Hot Water Faucet Restrictor(SF)	72.7		3.7	[1]
	Hot Water Faucet Restrictor(MF)	58.3		3.0	[1]
10	Door Weatherstripping (SF)	2.9	2.9	1.5	[1]
	Door Weatherstripping (MF)	2.9	2.9	0.6	[1], [2]
11	Water Heater Blanket (SF)	251.0		13.0	[1]
	Water Heater Blanket (MF)	202.0		12.0	[1]
12	Water Heater Pipe Wrap (SF)	53.0		3.3	[2]
	Water Heater Pipe Wrap (MF)	53.0		3.3	[2]

**Utility Service Territory SCE/SoCal Gas**  
**CEC Forecasting Climate Zones: 7 to 10, 12 and 16**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
13	Duct Wrap (SF)	124.0	124.0	5.5	[3]
	Duct Wrap (MF)	93.0	93.0	4.1	[3]
14	Switch/Outlet Gaskets (SF)	1.0	0.8	0.8	[1], [2]
	Switch/Outlet Gaskets (MF)	1.1	1.1	0.8	[1], [2]
15	Caulking, Per Dwelling (SF)	5.8	5.8	1.5	[1], [2]
	Caulking, Per Dwelling (MF)	5.0	5.0	0.4	[1], [2]
16	Other Weatherstripping (SF)	3.1	3.1	2.0	[1], [2]
	Other Weatherstripping (MF)	2.9	2.9	0.6	[1], [2]
17	<b>Electric Base Load Measures:</b>				
	a. Refrigerator Replacement (SF)	355			[1]
	a. Refrigerator Replacement (MF)	315			[1]
	a. Refrigerator (2nd Removed)	1077			[3]
	b. Electric Water Heater Repair	No Energy Savings			
	b. Electric Water Heater Replacement	129			[1]
	c. Microwave Oven (New)	273.3		28.8	[3]
	c. Microwave Oven (Replacement)	kWh difference between old and new			[5]
	d. Thread-based Compact Fluorescent Lamps	kWh difference between old and new			[5]
	e. Hard-Wired Compact Fluorescent Lamps	kWh difference between old and new			[5]
<b>OPTIONAL MEASURES</b>					
1	Ceiling Fans(SF)		165.0		[3]
	Ceiling Fans (MF)		165.0		[3]
2	Evaporative Cooler Repair (SF)		177.6		[2]
	Evaporative Cooler Repair (MF)		177.6		[2]
3	Filter Replacement for A/C or Furnace, Filters Only (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters Only (MF)		3.8	0.1	[2]
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (MF)		3.8	0.1	[2]
5	Setback Thermostat, Per Dwelling (SF)	330.0	330.0	60.0	[2]
	Setback Thermostat, Per Dwelling (MF)	170.1	170.1	23.0	[2]
6	<b>Other Optional Measures</b>				
a.	Floor Insulation (+36") Clearance			36.7	[1]
	Floor Insulation (-36") Clearance			36.7	[1]
b.	Electric Water Heater Timer (SF)	136.0	136.0		[3]
	Electric Water Heater Timer (MF)	102.0	102.0		[3]
c.	Shadescreen (SF)		1.4		[1]
	Shadescreen (MF)		2.5		[1]
d.	Shutters (SF)				[1]
	Shutters (MF)				[1]

**Utility Service Territory SCE/SoCal Gas**  
**CEC Forecasting Climate Zones: 7 to 10, 12 and 16**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
e.	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (SF)				[1]
	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (MF)				[1]
f.	Tinted Film (SF)		2.5		[1]
	Tinted Film (MF)		4.6		[1]
g.	Wood Fueled Space Heater(SF)	984.0		175.5	[3]
	Wood Fueled Space Heater(MF)	775.0		107.0	[3]

**Legend:**

SH - Space Heating  
AC - Central Air Conditioning  
SF - Single Family  
MF - Multi Family

[1] Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report, March 5, 2001

[2] 2001 DEER Update Study

[3] RHA Estimate

[4] Residential Energy Survey Report, 1994

[5] Calculation using kWh difference between old and new unit

**Utility Service Territory SDG&E**  
**CEC Forecasting Climate Zones: 13 and 15**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings		Source
		Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	
		SH	AC	
<b>WEATHERIZATION ACTIVITIES</b>				
1	Non-Blower Door Assessment (with attic)	No Energy Savings		
2	Non-Blower Door Assessment (without attic)	No Energy Savings		
3	Safety Check of Combustion Appliances (Pre-Test)	No Energy Savings		
4	Safety Check of Combustion Appliances (Post-Test)	No Energy Savings		
5	Blower Door Test	No Energy Savings		
6	Duct Leakage Pre-Test	No Energy Savings		
7	Duct Leakage Post-Test	No Energy Savings		
<b>MANDATORY MEASURES</b>				
1	Combustion Appliance Safety Hazard Repair/Replacement	No Energy Savings		
2	Glass Replacement(SF)		2.0	[1]
	Glass Replacement(MF)		0.5	[1]
3	Duct and Register Repair/Replacement (SF)	59.3	59.3	[1]
	Duct and Register Repair/Replacement (MF)	46.7	46.7	[1]
4	Minor Envelope Repair(SF)	67.9	32.5	[2]
	Minor Envelope Repair (MF)	66.5	25.5	[2]
5	Evap. Cooler/Air Conditioner Vent Cover (Inside)(SF)		2.6	[2]
	Evap. Cooler/Air Conditioner Vent Cover (Inside) (MF)		2.6	[2]
6	Attic Venting	No Energy Savings		
7	a. Ceiling Insulation R11 (SF)	271.7	129.9	[2]
	a. Ceiling Insulation R11 (MF)	266.1	102.0	[2]
	b. Kneewall Insulation R11	Included in Ceiling Insulation		
	c. Ceiling Insulation R19 (SF)	271.7	129.9	[2]
	c. Ceiling Insulation R19 (MF)	266.1	102.0	[2]
	d. Kneewall Insulation R19	Included in Ceiling Insulation		
	e. Ceiling Insulation R30 (SF)	271.7	129.9	[2]
	e. Ceiling Insulation R30 (MF)	266.1	102.0	[2]
	f. Ceiling Insulation R38 (SF)	271.7	129.9	[2]
	f. Ceiling Insulation R38 (MF)	266.1	102.0	[2]
8	Low-Flow Showerhead (MF)	185.7	9.7	[1]
	Low-Flow Showerhead (SF)	149.0	8.7	[1], [2]
9	Hot Water Faucet Restrictor(SF)	72.7	3.7	[1]
	Hot Water Faucet Restrictor(MF)	58.3	3.0	[1]
10	Door Weatherstripping (SF)		2.0	[1]
	Door Weatherstripping (MF)	2.5	0.4	[1], [2]
11	Water Heater Blanket (SF)	251.0	13.0	[1]
	Water Heater Blanket (MF)	202.0	12.0	[1]
12	Water Heater Pipe Wrap (SF)	53.0	3.3	[2]
	Water Heater Pipe Wrap (MF)	53.0	3.3	[2]
13	Duct Wrap (SF)	124.0	3.5	[3]
	Duct Wrap (MF)	93.0	2.6	[3]

**Utility Service Territory SDG&E**  
**CEC Forecasting Climate Zones: 13 and 15**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)		
		SH	AC		
14	Switch/Outlet Gaskets (SF)		0.8	0.8	[1], [2]
	Switch/Outlet Gaskets (MF)			0.8	[1], [2]
15	Caulking, Per Dwelling (SF)	5.1	5.1	1.7	[1], [2]
	Caulking, Per Dwelling (MF)	4.6	4.6	0.4	[1], [2]
16	Other Weatherstripping (SF)	2.7	2.7	2.0	[1], [2]
	Other Weatherstripping (MF)	2.5	2.5	0.6	[1], [2]
17	Electric Base Load Measures:				
	a. Refrigerator Replacement (SF)	355			[1]
	a. Refrigerator Replacement (MF)	315			[1]
	a. Refrigerator (2nd Removed)	1077			[3]
	b. Electric Water Heater Repair	No Energy Savings			
	b. Electric Water Heater Replacement	129			[1]
	c. Microwave Oven (New)	273.3	28.8		[3]
	c. Microwave Oven (Replacement)	kWh difference between old and new			[5]
	d. Thread-based Compact Fluorescent Lamps	kWh difference between old and new			[5]
e. Hard-Wired Compact Fluorescent Lamps	kWh difference between old and new			[5]	
OPTIONAL MEASURES					
1	Ceiling Fans(SF)		165.0		[3]
	Ceiling Fans (MF)		165.0		[3]
2	Evaporative Cooler Repair (SF)		177.6		[2]
	Evaporative Cooler Repair (MF)		177.6		[2]
3	Filter Replacement for A/C or Furnace, Filters Only (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters Only (MF)		3.8	0.1	[2]
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (MF)		3.8	0.1	[2]
5	Setback Thermostat, Per Dwelling (SF)	330.0	330.0	60.0	[2]
	Setback Thermostat, Per Dwelling (MF)	170.1	170.1	23.0	[2]
6	Other Optional Measures				
a.	Floor Insulation (+36") Clearance			29.6	[1]
	Floor Insulation (-36") Clearance			29.6	[1]
b.	Electric Water Heater Timer (SF)	136.0	136.0		[3]
	Electric Water Heater Timer (MF)	102.0	102.0		[3]
c.	Shadescreen (SF)		1.4		[1]
	Shadescreen (MF)		2.5		[1]
d.	Shutters (SF)				[1]
	Shutters (MF)				[1]

**Utility Service Territory SDG&E**  
**CEC Forecasting Climate Zones: 13 and 15**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
e.	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (SF)				[1]
	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (MF)				[1]
f.	Tinted Film (SF)		2.5		[1]
	Tinted Film (MF)		4.6		[1]
g.	Wood Fueled Space Heater(SF)	984.0		175.5	[3]
	Wood Fueled Space Heater(MF)	775.0		107.0	[3]

**Legend:**

SH - Space Heating  
AC - Central Air Conditioning  
SF - Single Family  
MF - Multi Family

[1] Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report, March 5, 2001

[2] 2001 DEER Update Study

[3] RHA Estimate

[4] Residential Energy Survey Report, 1994

[5] Calculation using kWh difference between old and new unit

## Appendix C



# Number of Homes Weatherized and Estimated Yearly Energy Savings per CAL LIHEAP Service Provider

Appendix C

#	CAL LIHEAP Service Provider	Number of Dwellings per Month--2001						
		Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01
1	Amador-Tuolumne Community Action Agency	0	14	37	48	49	2	0
2	California Human Development Corp.	0	16	64	4	8	64	42
3	Campeños Unidos, Inc.	0	95	91	101	107	0	0
4	Central Valley Opportunity Center, Inc.	9	36	47	42	32	16	35
5	City of Berkeley	12	24	27	22	15	0	2
6	Colusa-Glenn-Trinity Community Action Agency	12	12	14	8	9	6	5
7	Community Action Agency of Butte County, Inc.	3	63	46	12	2	20	20
8	Community Action Agency of San Mateo County, Inc.	0	44	102	45	63	45	82
9	Community Action Commission of Santa Barbara County	0	0	23	33	63	69	21
10	Community Enhancement Services	96	317	664	248	475	411	6
11	Community Resource Project, Inc.	92	236	291	189	235	262	127
12	Community Services and Employment Training, Inc.	13	138	219	30	173	97	0
13	Contra Costa County Community Services Department	27	36	36	72	38	0	0
14	County of Riverside, Department of Community Action	0	0	119	198	84	107	80
15	Del Norte Senior Center	0	2	10	8	7	0	0
16	Economic and Social Opportunities, Inc.	0	0	99	131	135	15	18
17	Economic Opportunity Commission of San Luis Obispo, Inc.	25	35	32	29	59	42	0
18	Economic Opportunity Council of San Francisco	84	198	156	73	174	10	10
19	El Dorado County Department of Community Services	29	40	45	56	21	0	0
20	Energy Services, Community Action Board of Santa Cruz County, Inc.	98	108	105	102	136	95	0
21	Fresno County Economic Opportunities Commission	0	0	609	0	0	0	680
22	Great Northern Corporation	3	10	24	55		11	0
23	Inyo Mono Advocates for Community Action, Inc.	0	0	27	0	0	12	0
24	Kern County Economic Opportunity Corp.	0	42	140	38	99	0	0
25	Kings Community Action Organization, Inc.	0	9	64	0	54	23	0
26	Madera County Community Action Committee, Inc.	6	6	30	16	9	14	6
27	Maravilla Foundation	130	424	1755	99	65	65	65
28	Mariposa County Human Services Department	0	0	6	0	0	0	1
29	Merced County Community Action Agency	10	13	30	28	27	22	20
30	Metropolitan Area Advisory Committee	60	108	99	57	11	78	31
31	Nevada County Department of Housing and Community Services	0	11	43	14	3	2	0
32	North Coast Energy Services	36	62	235	11	11	28	0
33	Orange County Community Development Council, Inc.	0	0	366	732	200	520	200
34	Pacific Asian Consortium in Employment	0	204	1052	167	505	170	118
35	Plumas County Community Development Commission	1	12	30	16	17	16	11
36	Project Go, Inc.	6	16	61	20	40	18	19
37	Redwood Community Action Agency	25	29	60	12	17	7	10
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	0	0	0	0	12	0	0
39	San Bernardino County Community Services Department	22	201	246	62	0	25	0
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.	0	76	59	0	85	0	0
41	Self-Help Home Improvement Project, Inc.	45	40	13	19	30	24	2
42	Spectrum Community Services, Inc.	0	108	84	135	175	149	128
43	TEACH, Inc.	0	0	18	0	0	4	0
44	Ventura County Commission on Human Concerns	7	45	98	84	62	93	83
45	Veterans in Community Services, Inc.	45	217	204	276	283	321	0
46	Northern California Indian Development Council (NCIDC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47	Karuk	0	0	0	0	0	0	0
Total Reports Analyzed		46	46	46	46	45	46	46
Total Number of Dwellings		896	3,047	7,580	3,292	3,590	2,863	1,822

Legend:



Wx Activity Report was not submitted by Agency  
Contract not extended during this time period





# Number of Homes Weatherized and Estimated Yearly Energy Savings per CAL LIHEAP Service Provider

Appendix C

#	CAL LIHEAP Service Provider	Number of Dwellings per Month--2002											
		Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02
1	Amador-Tuolumne Community Action Agency	0	0	0	0	0	0	4	0	0	0	0	2
2	California Human Development Corp.	51	12	0	17	11	4	9	28	143	187	64	145
3	Campeños Unidos, Inc.	0	73	103	48	41	104	55	51	93	0	0	0
4	Central Valley Opportunity Center, Inc.	27	0	0	35	18	14	0	0	0	0	0	0
5	City of Berkeley	0	0	0	0	0	0	2	1	0	0	0	0
6	Colusa-Glenn-Trinity Community Action Agency	0	0	2	0	0	0	0	4	0	0	2	0
7	Community Action Agency of Butte County, Inc.	19	22	6	7	4	2	1	2	1	5	17	8
8	Community Action Agency of San Mateo County, Inc.	15	16	18	6	0	0	0	3	1	0	0	0
9	Community Action Commission of Santa Barbara County	35	12	12	5	0	0	5	5	6	1	0	0
10	Community Enhancement Services	81	0	0	126	3	0	41	27	0	26	0	0
11	Community Resource Project, Inc.	119	228	172	105	110	121	37	7	13	16	1	0
12	Community Services and Employment Training, Inc.	0	0	31	29	25	22	17	28	13	2	1	10
13	Contra Costa County Community Services Department	0	0	88	0	0	80	42	15	31	88	0	0
14	County of Riverside, Department of Community Action	82	66	50	23	2	4	1	53	79	98	271	218
15	Del Norte Senior Center	0	0	0	11	8	0	0	2	0	0	0	0
16	Economic and Social Opportunities, Inc.	11	50	34	50	17	28	39	5	67	59	36	47
17	Economic Opportunity Commission of San Luis Obispo, Inc.	0	0	0	0	0	4	4	2	0	0	0	0
18	Economic Opportunity Council of San Francisco	10	24	0	0	0	0	0	27	0	0	23	14
19	El Dorado County Department of Community Services	0	0	0	0	0	0	0	0	0	0	0	0
20	Energy Services, Community Action Board of Santa Cruz County, Inc.	0	55	8	0	0	1	30	10	7	5	31	19
21	Fresno County Economic Opportunities Commission	280	200	295	0	69	35	0	0	31	10	0	13
22	Great Northern Corporation	0	0	0	0	0	0		0	0	0	0	0
23	Inyo Mono Advocates for Community Action, Inc.	0	0	0	0	0	0	0	7	0	0	0	2
24	Kern County Economic Opportunity Corp.	0	0	0	145	56	0	87	31	51	15	57	14
25	Kings Community Action Organization, Inc.	0	0	0	0	0	0	0	8	0	0	0	0
26	Madera County Community Action Committee, Inc.	0	0	0	0	0	0	0	0	0	0	0	0
27	Maravilla Foundation	0	0	10	68	50	0	2	18	11	17	0	0
28	Mariposa County Human Services Department	0	4		1	0	0	0	5	0	0	0	0
29	Merced County Community Action Agency	37	22	0	0	0	0	10	0	0	0	0	0
30	Metropolitan Area Advisory Committee	12	0	0	0	0	0	1	1	1	1	1	4
31	Nevada County Department of Housing and Community Services	3	32	1	39	0	0	0	0	0	0	7	11
32	North Coast Energy Services	151	44	71	20	49	0	0	0	0	14	4	0
33	Orange County Community Development Council, Inc.	0	175	0	0	0	12	5	0	5	0	0	0
34	Pacific Asian Consortium in Employment	91	133	5	98	74	73	5	17	18	5	11	31
35	Plumas County Community Development Commission	0	0	0	0	0	0		0	0	0	0	
36	Project Go, Inc.	17	18	16	8	6	6	3	0	1	2	1	0
37	Redwood Community Action Agency	43	29	0	0	0	0	7	0	0	0	0	0
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	0	0	0	0	0	0	0	0	3	0	0	0
39	San Bernardino County Community Services Department	0	14	26	74	10	0	34	12	47	49	91	35
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.	0	120	71	86	75	78	0	0	73	46	0	14
41	Self-Help Home Improvement Project, Inc.	1	2	7	0	0	6	6	8	0	0	5	0
42	Spectrum Community Services, Inc.	20	3	174	210	134	2	8	8	8	0	0	0
43	TEACH, Inc.	0	0	0	0	0	0	0	0	0	0	0	0
44	Ventura County Commission on Human Concerns	98	0	0	0	0	0	10	3	1	1	0	0
45	Veterans in Community Services, Inc.	0	0	0	0	0	0	0	0	4	2	2	17
46	Northern California Indian Development Council (NCIDC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0
47	Karuk	0	0	0	0	0	0	0	0		0		0
Total Reports Analyzed		46	46	45	46	46	46	44	47	46	47	46	46
Total Number of Dwellings		1,203	1,354	1,200	1,211	762	596	465	388	708	649	625	604

Legend:



-  Wx Activity Report was not submitted by Agency
-  Contract not extended during this time period

# Number of Homes Weatherized and Estimated Yearly Energy Savings per CAL LIHEAP Service Provider

Appendix C

#	CAL LIHEAP Service Provider	Number of Dwellings per Month--2003							Total Number of Dwellings	Estimated Yearly Energy Savings		
		Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03		Measure Qty	kWh	Therms
1	Amador-Tuolumne Community Action Agency	0	0	0	0	0	0		156	1,317	138,773	3,160
2	California Human Development Corp.								869	9,348	404,171	15,250
3	Campesinos Unidos, Inc.	0	0	0	0	0	0		962	8,195	452,134	8,924
4	Central Valley Opportunity Center, Inc.								311	3,809	255,045	14,709
5	City of Berkeley								105	1,332	55,348	4,710
6	Colusa-Glenn-Trinity Community Action Agency								74	644	38,956	1,843
7	Community Action Agency of Butte County, Inc.	3	0	0					263	3,291	313,428	8,371
8	Community Action Agency of San Mateo County, Inc.								440	2,808	221,496	9,625
9	Community Action Commission of Santa Barbara County								290	5,203	127,553	25,061
10	Community Enhancement Services	0	0	0	0	0	0		2,521	2,927	681,635	2,047
11	Community Resource Project, Inc.								2,361	14,129	1,233,695	26,272
12	Community Services and Employment Training, Inc.	0	0	0	0	0	30	34	912	1,545	266,695	1,469
13	Contra Costa County Community Services Department	0	0	83					636	5,633	88,307	21,986
14	County of Riverside, Department of Community Action								1,535	8,462	994,928	1,183
15	Del Norte Senior Center								48	685	70,934	1,475
16	Economic and Social Opportunities, Inc.								841	4,239	359,859	6,412
17	Economic Opportunity Commission of San Luis Obispo, Inc.								232	2,065	123,760	8,851
18	Economic Opportunity Council of San Francisco								803	2,590	263,907	3,989
19	El Dorado County Department of Community Services								191	3,073	102,532	6,448
20	Energy Services, Community Action Board of Santa Cruz County, Inc.								810	8,400	920,286	35,828
21	Fresno County Economic Opportunities Commission	0	0	0					2,222	15,603	804,518	48,290
22	Great Northern Corporation								103	1,303	46,729	4,031
23	Inyo Mono Advocates for Community Action, Inc.								48	209	13,615	88
24	Kern County Economic Opportunity Corp.								775	10,720	559,917	37,019
25	Kings Community Action Organization, Inc.								158	830	77,984	2,596
26	Madera County Community Action Committee, Inc.								87	1,398	55,182	3,110
27	Maravilla Foundation								2,779	20,384	1,384,353	17,366
28	Mariposa County Human Services Department								17	284	14,276	2,572
29	Merced County Community Action Agency								219	3,706	166,263	6,407
30	Metropolitan Area Advisory Committee								465	4,880	141,105	12,231
31	Nevada County Department of Housing and Community Services								166	1,407	105,586	5,741
32	North Coast Energy Services								736	5,148	411,644	10,740
33	Orange County Community Development Council, Inc.								2,215	5,740	688,947	7,701
34	Pacific Asian Consortium in Employment								2,777	13,225	786,486	41,745
35	Plumas County Community Development Commission								103	642	38,311	1,082
36	Project Go, Inc.								258	1,935	125,084	3,388
37	Redwood Community Action Agency								239	1,663	19,666	8,809
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	0	0	0	0	0	0		15	102	6,467	202
39	San Bernardino County Community Services Department								948	10,498	408,513	61,024
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.								783	10,295	337,528	44,918
41	Self-Help Home Improvement Project, Inc.								208	2,172	138,742	2,480
42	Spectrum Community Services, Inc.								1,346	7,978	484,774	8,459
43	TEACH, Inc.								22	74	9,195	147
44	Ventura County Commission on Human Concerns								585	1,399	131,765	11,559
45	Veterans in Community Services, Inc.	0	0	0					1,371	12,477	596,235	34,953
46	Northern California Indian Development Council (NCIDC)								0	0	0	0
47	Karuk								0	0	0	0
Total Reports Analyzed		9	9	9	5	5	5	1	915	Total Savings		
Total Number of Dwellings		3	0	83	0	0	30	34	33,005	14,666,325 584,271		

Legend:

-  Wx Activity Report was not submitted by Agency
-  Contract not extended during this time period